

Exhibit D1

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

**IN RE GOOGLE PLAY STORE
ANTITRUST LITIGATION**

THIS DOCUMENT RELATES TO:

Epic Games, Inc. v. Google LLC et al., Case
No. 3:20-cv-05671-JD

*In re Google Play Consumer Antitrust
Litigation*, Case No. 3:20-cv-05761-JD

State of Utah et al. v. Google LLC et al.,
Case No. 3:21-cv-05227-JD

*Match Group, LLC et al. v. Google LLC et
al.*,
Case No. 3:22-cv-02746-JD

Case No. 3:21-md-02981-JD

**PLAINTIFFS' OPPOSITION TO
DEFENDANTS' MOTION FOR
PARTIAL SUMMARY JUDGMENT**

Judge: Hon. James Donato

TABLE OF CONTENTS

	Page
TABLE OF AUTHORITIES	iv
INTRODUCTION AND STATEMENT OF ISSUES	1
LEGAL STANDARD.....	3
ARGUMENT	4
I. Google Is Not Entitled to Summary Judgment that § 4.5 of the DDA Is Lawful.....	4
A. Plaintiffs’ Section 2 Claims Are Not “Refusal-to-Deal” Claims.....	4
B. Plaintiffs’ Section 1 Claims Challenge Cognizable Concerted Action	6
II. Google Is Not Entitled to Summary Judgment on the <i>Per Se</i> Claims	7
III. Google Is Not Entitled to Summary Judgment on Timeliness Grounds.....	12
IV. Google Is Not Entitled to Summary Judgment on Standing.....	16
V. Google Is Not Entitled to Summary Judgment on Plaintiffs’ Tying Claims	21
A. Google Play and GPB Are Separate Products	21
B. Google Coerces Use of GPB.....	23
VI. Google’s Motion Should Be Denied Under Rule 56(d).....	24
CONCLUSION.....	25

TABLE OF AUTHORITIES

Page(s)

Cases

<i>Addyston Pipe & Steel Co. v. United States</i> , 175 U.S. 211 (1899).....	12
<i>Aerotec Int'l, Inc. v. Honeywell Int'l, Inc.</i> , 836 F.3d 1171 (9th Cir. 2016)	6, 24
<i>Am. Ad Mgmt., Inc. v. Gen. Tel. Co. of Cal.</i> , 190 F.3d 1051 (9th Cir. 1999)	19
<i>Anderson v. Liberty Lobby</i> , 477 U.S. 242 (1986)	3
<i>Apple Inc. v. Pepper</i> , 139 S. Ct. 1514 (2019)	passim
<i>Arizona v. Maricopa Cty. Med. Soc'y</i> , 457 U.S. 332 (1982)	11
<i>Aryeh v. Canon Business Solutions</i> , 55 Cal.4th 1185 (2013)	21
<i>Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters</i> , 459 U.S. 519 (1983)	17
<i>Aya Healthcare Servs., Inc. v. AMN Healthcare, Inc.</i> , 9 F.4th 1102 (9th Cir. 2021)	9
<i>Berkey Photo, Inc. v. Eastman Kodak Co.</i> , 603 F.2d 263 (2d Cir. 1979)	14, 15
<i>Blue Shield of Va. v. McCready</i> , 457 U.S. 465 (1982)	3, 19, 20
<i>Calnetics Corp. v. Volkswagen of Am., Inc.</i> , 532 F.2d 674 (9th Cir. 1976)	3
<i>Cascade Health Sols. v. PeaceHealth</i> , 515 F.3d 883 (9th Cir. 2008)	24
<i>Celotex Corp. v. Catrett</i> , 477 U.S. 317 (1986)	3
<i>Chamber of Com. v. City of Seattle</i> , 890 F.3d 769 (9th Cir. 2018)	12
<i>Chelson v. Oregonian Pub. Co.</i> , 715 F.2d 1368 (9th Cir. 1983)	20, 21
<i>City of Anaheim v. S. Cal. Edison Co.</i> , 955 F.2d 1373 (9th Cir. 1992)	2, 4, 13
<i>City of E. Chicago v. E. Chi. Second Century</i> , 878 N.E.2d 358 (Ind. Ct. App. 2007)	15
<i>Cont'l T.V., Inc. v. GTE Sylvania Inc.</i> , 433 U.S. 36 (1977)	12
<i>Datagate, Inc. v. Hewlett-Packard Co.</i> , 60 F.3d 1421 (9th Cir. 1995)	6
<i>Del. Valley Surgical Supply Inc. v. Johnson & Johnson</i> , 523 F.3d 1116 (9th Cir. 2008)	17
<i>Dimidowich v. Bell & Howell</i> , 803 F.2d 1473 (9th Cir. 1986)	9
<i>Eichman v. Fotomat Corp.</i> , 880 F.2d 149 (9th Cir. 1989)	3, 13, 14
<i>Ellis v. Salt River Project Agric. Improvement & Power Dist.</i> , 24 F.4th 1262 (9th Cir. 2022)	20

1	<i>Epic Games, Inc. v. Apple Inc.</i> , 2023 WL 3050076 (9th Cir. Apr. 24, 2023)	passim
2	<i>Esco Corp. v. United States</i> , 340 F.2d 1000 (9th Cir. 1965)	9
3	<i>Fennelly v. A-1 Mach. & Tool Co.</i> , 728 N.W.2d 163 (Iowa 2006)	15
4	<i>Frame-Wilson v. Amazon.com, Inc.</i> , 591 F. Supp. 3d 975 (W.D. Wash. 2022)	9
5	<i>FTC v. Actavis, Inc.</i> , 570 U.S. 136 (2013).....	11
6	<i>FTC v. D-Link Sys., Inc.</i> , 2018 WL 6040192 (N.D. Cal. Nov. 5, 2018).....	4
7	<i>FTC v. Qualcomm</i> , 969 F.3d 974 (9th Cir. 2020).....	6, 12
8	<i>Glen Holly Entertainment v. Tektronix</i> , 343 F.3d 1000 (9th Cir. 2003).....	19, 21
9	<i>Hanover Shoe, Inc. v. United Shoe Mach. Corp.</i> , 392 U.S. 481 (1968).....	14
10	<i>Image Tech. Serv., Inc. v. Eastman Kodak Co.</i> , 903 F.2d 612 (9th Cir. 1990).....	23
11	<i>In re Animation Workers Antitrust Litig.</i> , 87 F. Supp. 3d 1195 (N.D. Cal. 2015).....	12
12	<i>In re Cal. Gasoline Spot Mkt. Antitrust Litig.</i> , 2022 WL 3215002 (N.D. Cal. Aug. 9, 2022).....	21
13	<i>In re Capacitors Antitrust Litig.</i> , 106 F. Supp. 3d 1051 (N.D. Cal. 2015)	21
14	<i>In re Linerboard Antitrust Litig.</i> , 305 F.3d 145 (3d Cir. 2002)	18
15	<i>In re Musical Instruments & Equip. Antitrust Litig.</i> , 798 F.3d 1186 (9th Cir. 2015).....	9
16	<i>In re Sugar Indus. Antitrust Litig.</i> , 579 F.2d 13 (3d Cir. 1978).....	18
17	<i>In re Tableware Antitrust Litig.</i> , 484 F. Supp. 2d 1059 (N.D. Cal. 2007).....	20
18	<i>In re TFT-LCD (Flat Panel) Antitrust Litig.</i> , 586 F. Supp. 2d 1109 (N.D. Cal. 2008)	18
19	<i>Kansas v. UtiliCorp United, Inc.</i> , 497 U.S. 199 (1990).....	17
20	<i>Kauffman-Stachowiak v. Omni Hotels Mgmt. Corp.</i> , 2016 WL 4269504	
21	(N.D. Cal. Aug. 15, 2016).....	25
22	<i>Klehr v. A.O. Smith Corp.</i> , 521 U.S. 179 (1997)	14
23	<i>Klein v. Facebook, Inc.</i> , 580 F. Supp. 3d 743 (N.D. Cal. 2022).....	13
24	<i>Klein v. Meta Platforms, Inc.</i> , 2022 WL 17477101 (N.D. Cal. Dec. 6, 2022)	4
25	<i>L.A. Memorial Coliseum Commission v. NFL</i> , 791 F.2d 1356 (9th Cir. 1984).....	20
26	<i>Mayor of Baltimore v. Actelion Pharms. Ltd.</i> , 995 F.3d 123 (4th Cir. 2021).....	14
27	<i>Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.</i> , 269 F. Supp. 2d 1213 (C.D. Cal. 2003).....	21
28	<i>Nat'l Coll. Athletic Ass'n v. Bd. of Regents of Univ. of Okla.</i> , 468 U.S. 85 (1984).....	10

1	<i>Nat'l R.R. Passenger Corp. v. Morgan</i> , 536 U.S. 101 (2002)	13
2	<i>Nat'l Soc'y of Pro. Engineers v. United States</i> , 435 U.S. 679 (1978)	11
3	<i>Ohio v. Am. Express Co.</i> , 138 S. Ct. 2274 (2018)	9
4	<i>Oliver v. SD-3D LLC</i> , 751 F.3d 1081 (9th Cir. 2014)	12, 14
5	<i>Optronic Techs. v. Ningbo Sunny Elec. Co.</i> , 20 F.4th 466 (9th Cir. 2021)	8, 9, 11
6	<i>Ostrofe v. H.S. Crocker Co.</i> , 740 F.2d 739 (9th Cir. 1984)	20
7	<i>Palmer v. BRG of Ga., Inc.</i> , 498 U.S. 46 (1990)	2, 8, 11
8	<i>Re/Max Int'l v. Realty One, Inc.</i> , 173 F.3d 995 (6th Cir. 1999)	15
9	<i>Reiter v. Sonotone Corp.</i> , 442 U.S. 330 (1979)	17
10	<i>Rick-Mik Enters., Inc. v. Equilon Enters. LLC</i> , 532 F.3d 963 (9th Cir. 2008)	23
11	<i>Ron Tonkin Gran Turismo, Inc. v. Fiat Distribs., Inc.</i> , 637 F.2d 1376 (9th Cir. 1981)	9
12	<i>Rowan Cty. Bd. of Educ. v. U.S. Gypsum Co.</i> , 418 S.E.2d 648 (N.C. 1992)	15
13	<i>Royal Printing Co. v. Kimberly Clark Corp.</i> , 621 F.2d 323 (9th Cir. 1980)	18
14	<i>Snow v. Align Tech., Inc.</i> , 586 F. Supp. 3d 972 (N.D. Cal. 2022)	11
15	<i>Solid Rock Ch., Disciples of Christ v. Friendship Pub. Charter Sch., Inc.</i> ,	
16	925 A.2d 554 (D.C. 2007)	15
17	<i>State Dept. of Health & Human Svcs. v. Thompkins</i> , 695 S.E.2d 133 (N.C. 2010)	16
18	<i>State v. LG Elecs., Inc.</i> , 375 P.3d 636 (Wash. 2016)	15
19	<i>Teradata Corp. v. SAP SE</i> , 2018 WL 6528009 (N.D. Cal. Dec. 12, 2018)	23
20	<i>Toscano v. Professional Golfers Association</i> , 201 F. Supp. 2d 1106 (E.D. Cal. 2002)	7
21	<i>Toscano v. Professional Golfers Association</i> , 258 F.3d 978 (9th Cir. 2001)	6, 7
22	<i>United States v. Bates</i> , 429 F.2d 557 (9th Cir. 1970)	10
23	<i>United States v. Lischewski</i> , 2020 WL 1433272 (N.D. Cal. Mar. 24, 2020)	10
24	<i>US Airways, Inc. v. Sabre Holdings Corp.</i> , 938 F.3d 43 (2d Cir. 2019)	15
25	<i>US Airways, Inc. v. Sabre Holdings Corp.</i> , 2017 WL 1064709 (S.D.N.Y. Mar. 24, 2017)	15
26	<i>US Airways, Inc. v. Sabre Holdings Corp.</i> , 2022 WL 874945 (S.D.N.Y. Mar. 24, 2022)	15
27	<i>Verizon Commc'ns Inc. v. Law Off. of Curtis V. Trinko, LLP</i> , 540 U.S. 398 (2004)	5, 6
28	<i>Visa U.S.A. Inc. v. First Data Corp.</i> , 2006 WL 1310448 (N.D. Cal. May 12, 2006)	20

1	<i>Zenith Radio Corp. v. Hazeltine Rsch., Inc.</i> , 401 U.S. 321 (1971).....	13, 14
2	Statutes, Constitutional Provisions, and Rules	
3	15 U.S.C. §§ 1 et seq.....	passim
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5	Ariz. Rev. Stat. § 12-510	15
6	Cal. Bus. & Prof. Code § 16700	12, 21
7	D.C. Code § 12–301.....	15
8	Fed. R. Civ. P. 56(a)	3
9	Fed. R. Civ. P. 56(d)	25
10	La. Const. Art. 12, § 13.....	15
11	Miss. Code Ann. 15-1-51	15
12	Miss. Const. Art. 4, § 104	15
13	N.C.G.S. § 75-16.2.....	16
14	Wash. Code Civ. P. § 4.16.160.....	15
15	Other Authorities	
16	Am. Bar Ass’n, Model Jury Instructions in Civil Antitrust Cases (2016 ed.)	9
17	Areeda & Hovenkamp, <i>Antitrust Law</i> (2022).....	13, 14
18	Ninth Cir. Manual of Model Civil Jury Instructions (2017 ed.)	9
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1 Plaintiffs Epic Games, Match, Plaintiff States, and Consumer Plaintiffs hereby oppose
 2 Defendants' Motion for Partial Summary Judgment. For the convenience of the Court, Plaintiffs file a
 3 single consolidated brief. However, Google's Motion includes some arguments that are directed to only
 4 some Plaintiffs. Accordingly, while all Plaintiffs join the arguments in Sections I, III, V, and VI below
 5 that address common issues, only Epic and Match join Section II, and only the Plaintiff States and
 6 Consumer Plaintiffs join Section IV. Plaintiffs reserve and do not waive any rights, arguments, or issues
 7 pertaining to sections they have not joined.

8 INTRODUCTION AND STATEMENT OF ISSUES

9 For nearly 15 years, Google has deployed a web of unlawful anticompetitive practices to
 10 monopolize the markets for Android app distribution and in-app payment solutions. Through exclusivity
 11 and preferred payment arrangements with OEMs, payments to wireless carriers to disincentivize them
 12 from launching or supporting competing app stores, unnecessary technological barriers to the installation
 13 of competing app stores, agreements not to compete with potential app-store entrants, exclusionary
 14 contracts with developers, and more, Google has ensured that Google Play is the only viable way to
 15 distribute apps on Android and, through its tie, it has forced consumers and developers to use Google
 16 Play Billing ("GPB") for all in-app sales and purchases of digital content in those apps. Plaintiffs will
 17 prove all that at trial.

18 Google now attempts to prevent the jury from learning the full scope and history of its scheme
 19 under the guise of a "targeted motion." (Mot. 1.) As this Court has recognized, a complex antitrust case
 20 seldom contains "a pure issue of law with no genuine dispute of fact." (Dkt. 164 Tr. of Proceedings,
 21 Dec. 16, 2021.¹) This case is no exception. Google's Motion rests on disputed facts and incorrect
 22 statements of law. All five of its arguments for summary judgment fail:

23 *First*, Google incorrectly contends that Plaintiffs seek to impose on Google a duty to deal with
 24 rivals. (Mot. 6-9.) This argument rests on a mischaracterization of Plaintiffs' challenge to a provision
 25 of Google's Developer Distribution Agreement ("DDA") that prohibits the distribution of app stores on
 26

27 ¹ Unless noted otherwise, citations to "Dkt." refer to the ECF number of documents filed on the MDL
 28 docket, 3:21-md-02981-JD; citations to "Match Dkt" refer to the ECF number of documents filed on
 3:22-cv-02746-JD; and citations to "Ex." refer to exhibits from the Declaration of Michael J. Zaken filed
 in conjunction with this brief.

Google Play. By twisting Plaintiffs’ complaints to focus on one provision of one contract—ignoring that provision’s role in Google’s broader web of anticompetitive conduct—Google urges the Court to ignore the forest for a tree. Google’s “focus on specific individual acts of an accused monopolist while refusing to consider their overall combined effect” must be rejected. *City of Anaheim v. S. Cal. Edison Co.*, 955 F.2d 1373, 1376 (9th Cir. 1992). Rather than an isolated refusal to deal, the DDA is one agreement (among several) in furtherance of a monopoly, and thus violates Section 2 of the Sherman Act. And Google may not defeat Plaintiffs’ Section 1 claims by recasting a provision of a *contract* between Google and developers as a unilateral refusal to deal. As the Ninth Circuit recently confirmed with respect to a nearly identical agreement, Section 1 applies to *all* contracts that unreasonably restrain trade, including contracts of adhesion like the DDA. *Epic Games, Inc. v. Apple Inc.*, 2023 WL 3050076, at *16 (9th Cir. Apr. 24, 2023) (“*Epic v. Apple*”).

Second, Google moves for summary judgment on Epic’s and Match’s² claims that Google’s “Project Hug” agreements with three would-be competitors—Riot, Activision, and Supercell—were agreements not to compete that are *per se* illegal. (Mot. 9-13.) But the law is clear: horizontal agreements not to compete are *per se* illegal. *Palmer v. BRG of Ga., Inc.*, 498 U.S. 46, 49 (1990). At best, Google’s Motion raises disputed issues of fact regarding whether these Project Hug agreements are vertical or horizontal. On summary judgment, that is not enough to foreclose *per se* treatment of these agreements. Plaintiffs will prove at trial that these three competitors considered opening competing app stores on Android and communicated that fact to Google, then—in exchange for consideration from Google—agreed not to do so. The jury must decide whether the agreements at issue are mere vertical distribution agreements or rather horizontal agreements not to compete.

Third, Google vaguely challenges as untimely “Plaintiffs’ [c]laims [r]elated to [e]arly-Android [c]arrier [a]greements.” (Mot. 14-17.) Google’s Motion is an improper attempt to exclude evidence of a core component of its ongoing anticompetitive scheme. No Plaintiff has brought claims for injunctive relief or damages predicated on the carrier agreements *alone*. Rather, the carrier agreements were part of Google’s years-long effort to acquire and maintain monopoly power, which continues today. Because

² “Match” refers only to the four Match plaintiff entities. (See Dkt. 380.)

Google’s violation is continuing, Plaintiffs can recover for damages accrued within the limitations period, even if caused, in part, by pre-limitations-period conduct. *See, e.g., Eichman v. Fotomat Corp.*, 880 F.2d 149, 160 (9th Cir. 1989) (“When a plaintiff alleges a continuing violation of the law, an overt act . . . restart[s] the statute of limitations.”).

Fourth, Google asserts that the Consumer and State Plaintiffs lack antitrust standing to recover damages for in-app purchases (“IAPs”) and subscriptions because the in-app payment solution market they pleaded does not involve direct sales from Google to consumers. (Mot. 17-20.) This too is incorrect. Because the overcharged consumers pay Google directly for their purchases, those consumers have antitrust standing to seek damages under the Sherman and Clayton Acts. *See Apple Inc. v. Pepper*, 139 S. Ct. 1514, 1521 (2019). And because consumers’ injuries are “inextricably intertwined” with Google’s anticompetitive conduct, they have standing under *Blue Shield of Virginia v. McCready*, 457 U.S. 465, 484 (1982) and its progeny.

Fifth, Google moves against Plaintiffs’ claims that Google illegally ties Google Play—an app store that makes other apps available for download—to GPB, a payment solution for digital goods within apps. (Mot. 20-24.) Google argues that Google Play and GPB are one product *as a matter of law*. But that is a distinctively factual question for the jury, and ample evidence shows that the opposite is true—indeed, in *Epic v. Apple*, the Ninth Circuit concluded that Apple’s app store and in-app payment solution are separate products. 2023 WL 3050076, at *27-30. Google’s argument that it does not “coerce[] or force[]” (Mot. 23) all developers to use GPB likewise fails in light of the Ninth Circuit’s rejection of a similar argument in *Epic v. Apple* and multiple disputes of material fact.

All of Google’s arguments lack merit, and the Court should deny Google’s Motion in its entirety.

LEGAL STANDARD

A court may grant summary judgment only “if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); *see Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). In making that assessment, “[t]he evidence of the non-movant is to be believed” and “all justifiable inferences are to be drawn in [its] favor.” *Anderson v. Liberty Lobby*, 477 U.S. 242, 255 (1986). “These general standards for the granting of summary judgment become even more strict in the antitrust context.” *Calnetics Corp. v. Volkswagen of Am., Inc.*,

532 F.2d 674, 683 (9th Cir. 1976). “[T]rials are the best way to resolve legal disputes.” *FTC v. D-Link Sys., Inc.*, 2018 WL 6040192, at *1 (N.D. Cal. Nov. 5, 2018).

ARGUMENT

I. Google Is Not Entitled to Summary Judgment that § 4.5 of the DDA Is Lawful

Google first attacks a claim that Plaintiffs have not made. According to Google, Plaintiffs claim that “Google’s policy of refusing to distribute other app stores through the Google Play store is anticompetitive and violates Section 1 and 2 of the Sherman Act.” (Mot. 7.) In fact, Plaintiffs’ Section 2 claims more broadly target the wide array of efforts that Google has undertaken to impede competing app stores from being distributed on Android devices. Excluding those app stores from Google Play is just one element of Google’s anticompetitive scheme. And neither Plaintiffs’ Section 1 nor Section 2 claims attack a unilateral Google “policy”; the DDA is a *contract* by which developers are forced to forgo competition with Google.

A. Plaintiffs’ Section 2 Claims Are Not “Refusal-to-Deal” Claims

Google asserts that its decision not to “distribute its rivals’ app stores” cannot give rise to Section 2 liability because Google “ha[s] no obligation under the antitrust laws to ‘share its network with competitors.’” (Mot. 7.) Google attempts to isolate a single act—the prohibition on “distribut[ing] other app stores through the Google Play store”—from the complex and large web of anticompetitive practices that Google has implemented to foreclose competition and maintain Google’s monopoly power. (Mot. 6-7.) Google’s “focus on specific individual acts of an accused monopolist while refusing to consider their overall combined effect” is “not . . . proper.” *City of Anaheim*, 955 F.2d at 1376; *see Klein v. Meta Platforms, Inc.*, 2022 WL 17477101, at *2 (N.D. Cal. Dec. 6, 2022) (denying motion to dismiss plaintiffs’ Section 2 claim where defendant’s denial of access to software was part of the alleged anticompetitive course of conduct).

Plaintiffs have alleged, and will prove at trial, that Google effectively foreclosed *all* meaningful avenues by which competing app stores can reach Android devices—preinstallation by OEMs, downloading via Google Play, or direct downloading from the web. For example, Google:

- Conditioned OEMs’ access to the only commercially viable version of Android on their agreement to preinstall Google Play on the home screen of their Android devices (Ex. 1

1 Kolotouros Tr. 119:15-20; Ex. 2 GOOG-PLAY-000128863.R at -8877.R);

- 2 • Paid most major OEMs to make Google Play the exclusive app store on their devices (Ex. 1
3 Kolotouros Tr. 249:3-252:9; Ex. 3 Gentzkow Tr. 192:23-193:16);
- 4 • Signed agreements to prevent key developers from opening their own app stores (*see, e.g.*,
5 Ex. 4 GOOG-PLAY-007035840 at -5840; Ex. 6 GOOG-PLAY-004146689.R at -6694.R
6 to -6698.R; Ex. 3 Gentzkow Tr. 93:22-94:4; 95:1-14; 98:15-99:4; *see also* Ex. 8 Bernheim Rpt.
7 ¶¶ 441-43); and
- 8 • Imposed technological frictions that impede consumers from directly downloading competing
9 app stores from the web (*see, e.g.*, Ex. 10 Kochikar Tr. 54:12-55:10).

10 Complementing these exclusionary restrictions is Section 4.5 of the DDA, an agreement between
11 Google and developers that prohibits the distribution of competing stores through Google Play.
12 Specifically, it provides that developers “may not use Google Play to distribute or make available any
13 Product that has a purpose that facilitates the distribution of software applications and games for use on
14 Android devices outside of Google Play.” (Ex. 51 DDA Section 4.5.) Google engineer Dan Morrill
15 explained that the “intent of that clause is indeed 100% protectionist” and was “explicitly intended to
16 prevent people from using the [Android] Market”—the predecessor to Google Play—“to distribute a
17 competing app store.” (Ex. 11 GOOG-PLAY-004283892 at -3892.)

18 Plaintiffs do not assert liability against Google for Section 4.5 of the DDA *on its own*; rather,
19 Plaintiffs challenge the thicket of restrictions Google employs to foreclose competing stores, which
20 includes Section 4.5. Plaintiffs seek to remove this web of restrictions so that competing stores—and
21 ultimately all Android developers—can choose *not* to deal with Play, such that Android can be the open
22 platform Google has always promised it would be.

23 Google’s web of anticompetitive conduct makes this case completely different from the refusal-
24 to-deal cases Google cites. In *Trinko*, for example, customers of Verizon’s rivals alleged that Verizon—
25 which was required by law to share its network with its competitors—had violated Section 2 solely on
26 the basis that it unilaterally delayed orders placed by its competitors’ customers. *Verizon Commc’ns Inc.*
27 *v. Law Off. of Curtis V. Trinko, LLP*, 540 U.S. 398, 402, 404 (2004). Here, by contrast, Google has
28 implemented a broad and multifaceted anticompetitive scheme to *foreclose* Android app distribution that

is not a mere refusal to deal; instead, it involves a wide variety of interlocking technological and contractual restrictions on OEMs, developers, and consumers. These restrictions, imposed across the Android ecosystem, are different in kind from the mere “insufficient assistance” in *Trinko*. *See id.* at 410. Google’s reliance on *FTC v. Qualcomm* likewise fails because there the Ninth Circuit examined (and reversed) a finding by the district court that independent of any other conduct, “Qualcomm’s refusal to license rival chipmakers violates . . . an antitrust duty to deal under § 2 of the Sherman Act.” 969 F.3d 974, 987 (9th Cir. 2020). Plaintiffs do not claim such an independent duty to deal, but only that Google’s DDA provisions are actionable as part of its broader anticompetitive scheme.

B. Plaintiffs’ Section 1 Claims Challenge Cognizable Concerted Action

Google argues that any effort by Plaintiffs “to evade *Trinko* by resorting to Section 1 of the Sherman Act . . . would be unavailing . . . because Plaintiffs are ultimately challenging Google’s unilateral policy and design decision.” (Mot. 7-8.) Not so. Plaintiffs challenge the DDA, which is a contract. The fact that Google coerces developers to enter into the contract is irrelevant to Section 1, which prohibits “[e]very contract . . . in restraint of trade,” whether coerced or not. 15 U.S.C. § 1. Indeed, established Section 1 claims such as tying and exclusive dealing are almost always based on contracts of adhesion. *See, e.g., Aerotec Int’l, Inc. v. Honeywell Int’l, Inc.*, 836 F.3d 1171, 1180 (9th Cir. 2016); *Datagate, Inc. v. Hewlett-Packard Co.*, 60 F.3d 1421, 1427 (9th Cir. 1995). And the Ninth Circuit has now rejected Google’s exact argument in *Epic v. Apple*, holding that the district court “erred when it held that a non-negotiated contract of adhesion,” like the DDA, “falls outside of the scope of Section 1.” 2023 WL 3050076, at *16. That holding dooms Google’s Motion on this ground.

The only Ninth Circuit case Google cites, *Toscano v. Professional Golfers Association*, 258 F.3d 978 (9th Cir. 2001), does not support its position. There, a golfer who failed to qualify for the Senior PGA Tour brought Section 1 claims against firms that sponsored individual golf tournaments on the ground that they accepted PGA Tour terms that allegedly harmed competition among golfers. *Id.* at 981-83. Importantly, in that decision, the court did not evaluate Toscano’s claims against the entity that, like

Google, imposed the rules at issue. *Id.* at 984. Indeed, Toscano’s Section 1 claims against that entity, the PGA Tour, were *not* dismissed. *See* 201 F. Supp. 2d 1106 (E.D. Cal. 2002).

II. Google Is Not Entitled to Summary Judgment on the *Per Se* Claims

Epic and Match assert that Google entered agreements not to compete with developers Riot, Activision, and Supercell (the “Potential Entrants”) that are *per se* illegal under Section 1. Plaintiffs will show at trial that the Potential Entrants informed Google of their intention to launch competing Android app stores and that, in response, Google paid off the Potential Entrants in exchange for their agreements not to launch those app stores. Ample evidence supports this claim:

Riot. In 2018, Riot “told [Google] it was planning to launch its own Android app store.” (Ex. 5 Koh Tr. 285:4-9.) In response, Google “pulled all stops,” including giving Riot \$10 million in marketing funds “to get Riot to stop their inhouse ‘app store’ efforts.” (Ex. 47 GOOG-PLAY-007424789 at -4789.) Google understood that, as a result, Riot “agreed to put aside their off-Play distribution platform and launch on Play.” (Ex. 4 GOOG-PLAY-007035840 at -5840.) To date, Riot has not launched an Android app store.

[REDACTED]

Zerza Tr. 199:2-6.) Activision [REDACTED]

[REDACTED] (Ex. 13 AB-GOOG-000492 at -0495), and [REDACTED]

[REDACTED] (Ex. 12 Zerza Tr. 46:8-47:24). Activision then informed Google that it was “considering launching a mobile distribution platform in Q1 [but that] decision is dependent on if they can find the right deal/solution with [Google].” (Ex. 15 GOOG-PLAY4-002193650 at -3650.) Google understood Activision’s threat, recognizing that “[i]f this deal falls through” Activision “will launch their own mobile distribution platform.” (Ex. 46 GOOG-PLAY-007280918 at -0919.) In response, Google agreed to provide Activision with \$360 million in benefits in a written agreement that prohibited Activision from removing its apps from Google Play and from making content available on another store that is not also on Google Play. (Ex. 48 GOOG-PLAY-007847561 at -7561.) The agreement reflects Google’s and Activision’s mutual understanding that Activision would *not* launch its own Android app store. To date, Activision has not launched an Android app store.

Supercell. In 2019, Supercell informed Google that it was working on launching a web store

that would offer “digital items for purchase that could be used in game on Android,” from which “Google would not make money.” (Ex. 10 Kochikar Tr. 177:21-178:5.) “Google was concerned that Supercell’s decision . . . could attract the attention of other large developers to follow suit.” (*Id.* at 178:6-10.) As a result, Google entered into an “emerging markets” deal with Supercell around the middle of 2022. (*Id.* at 179:5-7.) Among other things, Google offered Supercell “up to [REDACTED]” in exchange for a written commitment not to launch content exclusively on its own or on any other store besides Google Play, reflecting Google’s and Supercell’s mutual understanding that Supercell would not launch a competing app store. (*Id.* at 179:10-13, 181:24-182:6.) To date, Supercell has not launched an Android app store.

Under Section 1, agreements not to compete between actual or would-be competitors are “[o]ne of the classic examples of a *per se* violation.” *Palmer*, 498 U.S. at 49; *see also Optronic Techs. v. Ningbo Sunny Elec. Co.*, 20 F.4th 466, 481 (9th Cir. 2021) (*per se* illegal agreement not to compete with an entity with “technical capability to manufacture the same” product). Nonetheless, Google argues the jury should not even be allowed to consider this evidence as proof of *per se* illegal agreements for three reasons, none of which is sound.

First, Google argues that the relevant “agreements are vertical in nature” or at least “hybrid” agreements with both horizontal and vertical elements because the Potential Entrants are also Google’s customers. (Mot. 11.) Google then asserts that such “hybrid” agreements must be “evaluated under the rule of reason.” (Mot. 11-12.) But agreements not to compete with potential competitors are illegal *per se*, even when such agreements have vertical elements. *Palmer*, 498 U.S. at 47 (agreement between a national bar review company and a regional competitor to make the regional entity a distributor of the national company in exchange for payments and a commitment not to expand outside of Georgia deemed *per se* illegal); *see also Optronic*, 20 F.4th at 479-81 (parties to a *per se* illegal agreement not to compete shared a vertical supply relationship because the consideration for the agreement included “‘prepayments’ . . . for unshipped telescopes”). In those cases, it was irrelevant that the illegal agreements involved parties in a vertical relationship (the license to goods and intellectual property in

1 *Palmer* and the sale of telescopes in *Optronic*)—agreements not to compete are “*per se* antitrust
2 violations when engaged in by horizontal competitors.” *Optronic*, 20 F.4th at 476.³

3 None of the cases Google relies on suggests otherwise. Those cases discuss concerted refusals
4 to deal, not agreements not to compete. *See Dimidowich v. Bell & Howell*, 803 F.2d 1473, 1479-80 (9th
5 Cir. 1986) (allegations that “both [defendants] refused to sell [plaintiff] the parts he sought and that they
6 were aware of each other’s refusals”); *Ron Tonkin Gran Turismo, Inc. v. Fiat Distribs., Inc.*, 637 F.2d
7 1376, 1382 (9th Cir. 1981) (“‘group boycott’ rationale”); *Frame-Wilson v. Amazon.com, Inc.*, 591
8 F. Supp. 3d 975, 987 (W.D. Wash. 2022) (quoting *Dimidowich*). Unlike agreements not to compete,
9 which are categorically *per se* illegal, “courts are reluctant to pigeonhole all concerted refusals to deal
10 as [*per se* illegal].” *Dimidowich*, 803 F.2d at 1480. Epic and Match do not allege concerted refusals to
11 deal. Rather, the evidence will show that each Potential Entrant was a would-be competitor that was
12 actively planning to launch an app store to compete directly with Google Play. (Ex. 13 AB-GOOG-
13 000492 at -0495; Ex. 5 Koh Tr. 285:4-9.) Thus, the agreements with the Potential Entrants were
14 horizontal agreements not to compete subject to *per se* treatment. *See* Ninth Cir. Manual of Model Civil
15 Jury Instructions, § 14 (2017 ed.) (citing Am. Bar Ass’n, Model Jury Instructions in Civil Antitrust
16 Cases, ch. 2.C, instr. 3 (2016 ed.) (*per se* instruction appropriate where plaintiff proves “defendants
17 are . . . competitors or potential competitors” (emphasis added))).

18 *Second*, Google contends that Epic’s and Match’s interrogatory responses confirm that the rule
19 of reason applies because “[w]hen asked to identify all the terms of the alleged agreements not to launch
20 competing Android app stores, Epic and Match merely pointed to the written [Hug] contracts,” which
21 do not contain specific provisions that literally prohibit competing app stores. (Mot. 12.) Google is
22 wrong. To begin, there is no requirement to identify specific, written contract provisions that prevent
23 competition to maintain a *per se* claim for restraint of trade. *See Esco Corp. v. United States*, 340 F.2d
24

25 ³ Google’s cases acknowledge that an agreement between competitors is horizontal. *Ohio v. Am.*
26 *Express Co.*, 138 S. Ct. 2274, 2285 n.7 (2018) (“horizontal restraints involve agreements between
27 competitors not to compete in some way”); *Aya Healthcare Servs., Inc. v. AMN Healthcare, Inc.*, 9 F.4th
28 1102, 1108 (9th Cir. 2021) (“[a] horizontal restraint is an agreement among competitors on the way in
which they will compete with one another”); *In re Musical Instruments & Equip. Antitrust Litig.*, 798
F.3d 1186, 1191 (9th Cir. 2015) (“horizontal market division[s]” are *per se* illegal). None holds that the
per se rule cannot apply where one party to a horizontal restraint is also a customer of the other.

1 1000, 1007 (9th Cir. 1965) (“It is not necessary to find an express agreement, either oral or written, in
 2 order to find a conspiracy [to restrain trade].”); *see also United States v. Lischewski*, 2020 WL 1433272,
 3 at *3-4 (N.D. Cal. Mar. 24, 2020). Monopolists like Google have an interest in keeping their illegal,
 4 anticompetitive agreements secret; “[e]vidence of a conspiracy must ordinarily be based on inferences
 5 drawn from competent circumstantial evidence.” *United States v. Bates*, 429 F.2d 557, 558-59 (9th Cir.
 6 1970).

7 Here, there is ample circumstantial evidence for a trier of fact to find the existence of a *per se*
 8 illegal contract, even absent a specific contractual provision. Epic’s response to Google’s Interrogatory
 9 No. 28 directs Google to *both* the written Hug agreements *and* “its Response to Interrogatory No. 30,”
 10 which lists evidence outside of the contracts’ text that the Potential Entrants secured payments from
 11 Google in exchange for agreements not to compete. (Dkt. 480-12 Epic’s R&Os to Google’s Fifth
 12 Amended Interrogatories, Nos. 28, 30.) Match’s response similarly directs Google to the written Hug
 13 agreements and the same additional evidence. (Dkt. 480-13 Match’s R&Os to Google’s Contention
 14 Interrogatories, Nos. 24, 26.) Epic’s and Match’s responses point to a full suite of evidence Plaintiffs
 15 have unearthed showing that Google entered into agreements not to compete.

16 Even if Epic and Match *had* limited their contentions to the written terms of the Project Hug
 17 agreements themselves, summary judgment would still be inappropriate because the intended purpose
 18 and inevitable consequence of those terms was to prevent the Potential Entrants from launching
 19 competing Android app stores. Google attempts to sidestep this argument by inaccurately recasting
 20 Epic’s and Match’s allegations. Google argues that showing an agreement has an *actual* anticompetitive
 21 effect on the market is insufficient. But what Epic and Match will show based on Google’s internal
 22 documents is that the “*intended* effect” of the agreements was to block competing app stores. (Mot. 12.)
 23 A jury can infer from this intent that the agreement between Google and its would-be competitors was a
 24 naked restraint on competition, not a restraint that is ancillary to a legitimate purpose. (Ex. 47 GOOG-
 25 PLAY-007424789 at -4789.) Moreover, direct proof of anticompetitive intent is not even necessary. *Cf.*
 26 *Nat’l Collegiate Athletic Ass’n v. Bd. of Regents of Univ. of Oklahoma*, 468 U.S. 85, 101 (1984) (“[G]ood
 27 motives will not validate an otherwise anticompetitive practice[.]”). If two competitors form an
 28 agreement with terms that inevitably result in one party not competing with the other, a jury can

1 reasonably conclude that the parties had the mutual intent to agree not to compete, which is *per se* illegal.
 2 *Nat'l Soc'y of Pro. Engineers v. United States*, 435 U.S. 679, 692 (1978) (certain agreements are *per se*
 3 illegal due to their “nature and *necessary effect*” on competition (emphasis added)). The record evidence
 4 is more than is required to prove a *per se* violation of the antitrust laws.

5 *Third*, Google claims that the *per se* rule cannot apply because the relevant agreements “involve
 6 multi-faceted incentives from Google to its customers,” and there is “no tradition of courts condemning
 7 agreements in which a firm offers incentives to customers willing to make investments in the firm’s
 8 product.” (Mot. 13.) Again, Google is trying to prevent the jury from deciding a material issue of
 9 disputed fact: whether the agreements were an offer of “incentives to customers” as Google suggests or,
 10 instead, agreements not to compete, as Plaintiffs intend to prove. That factual issue is crucial because
 11 courts regularly condemn as *per se* illegal agreements in which a firm offers complex incentives to secure
 12 an agreement not to compete, as Google has done here. *See, e.g., Optronic*, 20 F.4th at 479-81. Indeed,
 13 *Palmer* involved customers who received non-monetary benefits (a license to IP and course materials)
 14 in exchange for an agreement not to compete. 498 U.S. at 47.

15 Google argues that *FTC v. Actavis, Inc.*, 570 U.S. 136 (2013), holds that any agreement backed
 16 by “multi-faceted value exchanges” falls under the rule of reason. (Mot. 13.) Nothing in *Actavis*,
 17 however, establishes such a rule regarding “multi-faceted” contracts. In fact, the Court there stated that
 18 an agreement’s complexity must not “immunize the agreement from antitrust attack.” *Id.* at 147.
 19 Moreover, “*Actavis* concerned the unique context of ‘reverse payment’ settlements—settlements of
 20 patent infringement litigation that require ‘the claimed infringer not to produce the patented product until
 21 the patent’s term expires’ in exchange for payment.” *Snow v. Align Tech., Inc.*, 586 F. Supp. 3d 972,
 22 982 (N.D. Cal. 2022). Google did not pay to settle litigation—it paid to shut down competition.

23 *Finally*, Google asserts that “[t]he Ninth Circuit has noted that *per se* treatment is particularly
 24 unsuited to dynamic markets, ‘especially in technology markets.’” (Mot. 11.) The Supreme Court,
 25 however, has already rejected Google’s argument. *See Arizona v. Maricopa Cty. Med. Soc’y*, 457 U.S.
 26 332, 350-51 (1982) (“[T]he argument that the *per se* rule must be rejustified for every industry that has
 27 not been subject to significant antitrust litigation ignores the rationale for *per se* rules.”). There is no
 28 need to rejustify the *per se* rule for the type of agreements Google struck—basic market allocation

agreements that have been *per se* illegal since the 19th century. *See Addyston Pipe & Steel Co. v. United States*, 175 U.S. 211 (1899). Notably, Google’s sweeping statement is wholly unsupported by the cases it cites, which concern purely vertical restraints evaluated under the rule of reason, *see Qualcomm*, 969 F.3d 974, *Cont’l T.V., Inc. v. GTE Sylvania Inc.*, 433 U.S. 36, 59 (1977); or apply no substantive antitrust law, *see Chamber of Com. v. City of Seattle*, 890 F.3d 769, 787 (9th Cir. 2018). Accordingly, Google’s Motion seeking dismissal of the *per se* claims should be denied.⁴

III. Google Is Not Entitled to Summary Judgment on Timeliness Grounds

Google argues that “any claim based on” its revenue sharing agreements (“RSAs”) with carriers is time-barred. (Mot. 14.) Google’s Motion should be denied for three independent reasons: (1) Google improperly attempts to withhold from the jury important evidence of its unlawful scheme to acquire and maintain monopoly power; (2) Google ignores its numerous overt acts in furtherance of its ongoing scheme, which continues to this day; and (3) consumers and developers paid Google supracompetitive prices within the limitations period and can recover for damages accrued within the limitations period, even if caused, in part, by pre-limitations-period conduct.⁵

First, Google’s Motion fails to consider the carrier agreements in the context of Plaintiffs’ claims. The carrier agreements are part of a larger, *ongoing* scheme to achieve and maintain Google’s market power in the Android App Distribution Market in violation of Section 2.⁶ (Ex. 16 GOOG-PLAY4-000339905 at -9905 (“The reason we paid T-Mobile rev-share is to keep them from creating their own store where they would get far more than 25%.”); Ex. 56 Singer Rpt. at 24-26 (carrier and OEM agreements “dissuaded (and in some cases prevented) them from developing, promoting, or offering alternative App stores, including their own stores”).) Indeed, Google’s documents confirm that it “cut

⁴ This aspect of Google’s Motion is limited to whether a *per se* instruction may be sought after the evidence comes in at trial. (Mot. 9-13.) Plaintiffs reserve the right to brief the appropriate standard if it is not *per se*.

⁵ For the same reasons that Plaintiffs’ claims are timely under the Clayton Act, Google is not entitled to a laches defense, *see Oliver v. SD-3D LLC*, 751 F.3d 1081, 1086 (9th Cir. 2014), and Plaintiffs’ state-law claims are timely, *In re Animation Workers Antitrust Litig.*, 87 F. Supp. 3d 1195, 1208 (N.D. Cal. 2015) (noting Cartwright Act statute of limitations is “functionally identical”).

⁶ *See* Dkt. 172 2d Am. Consumer Compl. ¶ 218 (“Google’s contractual restrictions on OEMs, Mobile Network Carriers and developers further Google’s monopolization of the Android Application Distribution Market”) Counts 1-11 (no carrier-specific claims); No. 3:21-cv-05227, Dkt. 188 1st Am. State Compl. Counts 1-8 (no carrier-specific claims); Dkt. 378 Epic’s 2d Am. Compl. Counts 1-13 (same); Dkt. 380 Match’s 1st Am. Compl. Counts 1-15 (same).

carriers in to disincentivize building their own stores.” (Ex. 43 GOOG-PLAY-000439987.R at -0012.R.) Google now seeks to conceal this evidence from the jury. Setting aside that Google’s request is a *motion in limine* masquerading as a motion for partial summary judgment, the jury is permitted to learn about the agreements that led to Google’s present monopoly, even assuming *arguendo* they “fall outside the statutory time period.” *Nat’l R.R. Passenger Corp. v. Morgan*, 536 U.S. 101, 103 (2002); *see* Areeda & Hovenkamp, *Antitrust Law* ¶ 320 (2022) (“[A plaintiff can] rely on pre-limitation conduct in order to establish the exclusionary practices portion of a monopolization claim.”). Google’s attempt to keep the jury from learning about the full history of its conduct should be rejected. *See City of Anaheim*, 955 F.2d at 1376.

Second, Google has committed numerous overt acts during the limitations period to obtain and maintain monopoly power. “When a plaintiff alleges a continuing violation of the law, an overt act . . . restart[s] the statute of limitations and the statute of limitations runs from the last overt act.” *Eichman*, 880 F.2d at 160. Plaintiffs’ claims are timely if *any* of those acts fell within the limitations period. *See Klein v. Facebook, Inc.*, 580 F. Supp. 3d 743, 795-97 (N.D. Cal. 2022) (analyzing five separate overt acts in determining whether Section 2 claims were timely). Google has committed overt anticompetitive acts within the limitations period and continues to commit them through today. (*See, e.g.*, Ex. 1 Kolotouros Tr. 86:17-87:2 (discussing the Sony and Sharp RSAs signed in 2020); *see also* Ex. 53 Singer Rpt. at 93-112 (identifying RSAs with OEMs, MADA agreements, and other anticompetitive actions within the limitations period).) Thus, there is no basis to dismiss *any* of Plaintiffs’ claims on statute-of-limitations grounds.

Third, Google’s ongoing supracompetitive commission—enabled in part by the carrier agreements—is an additional overt acts that independently makes Plaintiffs’ carrier agreement claims timely. The continued extraction of supracompetitive prices permits Plaintiffs to recover damages incurred within the limitations period, even if caused, in part, by pre-limitations conduct. *See, e.g.*, *Zenith Radio Corp. v. Hazeltine Rsch., Inc.*, 401 U.S. 321 (1971). In *Zenith*, the issue before the Supreme Court was whether the statute of limitations “permit[s] Zenith to recover all of the damages it suffered during the years 1959-1963 even though some undetermined portion of those damages *was the proximate result of conduct occurring more than four years prior.*” *Id.* at 333 (emphasis added). The Court held

that Zenith could recover because claims for damages “accrue only on the date they are suffered.” *Id.* at 339; *see Hanover Shoe, Inc. v. United Shoe Mach. Corp.*, 392 U.S. 481, 502 n.15 (1968) (“Although Hanover could have sued in 1912 for the injury then being inflicted, it was equally entitled to sue in 1955.”); *Klehr v. A.O. Smith Corp.*, 521 U.S. 179, 189 (1997) (“[E]ach overt act that is part of the violation and that injures the plaintiff, *e.g.*, each sale to the plaintiff, starts the statutory period running again, regardless of the plaintiff’s knowledge of the illegality at much earlier times.” (citation omitted)).

Plaintiffs will prove at trial that Google’s commission is supracompetitive because of Google’s anticompetitive conduct, including but not limited to the RSAs. (*See, e.g.*, Ex. 53 Singer Rpt. at 87-93 (analysis of carrier agreements), 128-60 (modeling but-for commission rates).) Every time Google extracted its supracompetitive commission, Google committed an overt act in furtherance of a continuing antitrust violation. “[E]ach time a defendant sells its price-fixed product, the sale constitutes a new overt act causing injury to the purchaser and the statute of limitations runs from the date of that act.” *SD-3C*, 751 F.3d at 1086. “[A] purchaser suing a monopolist for overcharges paid within the previous four years may satisfy the conduct prerequisite to recovery by pointing to anticompetitive actions taken before the limitations period.” *Berkey Photo, Inc. v. Eastman Kodak Co.*, 603 F.2d 263, 296 (2d Cir. 1979); *see also Mayor of Baltimore v. Actelion Pharms. Ltd.*, 995 F.3d 123, 131 (4th Cir. 2021) (“[E]ach time that Actelion sold Tracleer at a supracompetitive price after its patent expired, it illegally exercised monopoly power . . . thus committing an overt act that caused injury and violated the antitrust laws.”); Areeda & Hovenkamp, *Antitrust Law* ¶ 320 (2022).⁷

The cases Google cites for the proposition that “it is irrelevant as a matter of law whether the carrier revenue-sharing contracts had some effect that lingered into the limitations period” (Mot. 15) concern a narrow exception to the usual rule that is inapplicable to this case. In those cases, ongoing supracompetitive charges were found not to be individual overt acts because they were governed by negotiated pre-limitations contracts signed by the plaintiff and defendant. *Eichman*, 880 F.2d at 160

⁷ No plaintiff in this case seeks to use facts about the carrier agreements to recover damages prior to the four-year limitations period. (*See* Ex. 53 Singer Rpt. at 203 (seeking Consumer and State damages starting August 16, 2016, four years prior to first consumer complaint); Ex. 18 Schwartz Rpt. at 229-30 (seeking Match damages starting July 7, 2017).) Moreover, Epic does not seek to recover any monetary damages.

(defendant’s “passive receipt of profits” from pre-limitations lease agreement with plaintiff was not an overt act); *US Airways, Inc. v. Sabre Holdings Corp.*, 938 F.3d 43, 69 (2d Cir. 2019) (“[W]e think of the performance of a contract as a manifestation of the ‘overt act,’ the decision to enter the contract, rather than an independent overt act of its own.”).⁸ In those cases, the terms of the contract set the overcharge, and therefore the only overt act was the signing of the contract. *US Airways*, 2022 WL 874945, at *6 (S.D.N.Y. Mar. 24, 2022) (“A defendant does not commit an overt act restarting the statute of limitations each time a plaintiff pays a defendant a supracompetitive price *pursuant to an anticompetitive contract to which they are a party.*” (emphasis added)). Here, the payments at issue are not governed by performance of the RSAs’ terms, nor did any Plaintiff sign the RSAs. And, even in *US Airways*, substantial evidence concerning the pre-limitations-period contracts was admitted at trial to prove liability for the remaining timely claims. *See* 2017 WL 1064709, at *17 & n.11 (S.D.N.Y. Mar. 21, 2017) (evidence that defendant used market power “to impose the full-content contractual terms in the 2006 [time-barred] agreement, which further ingrained its market power”).

Finally, Arizona, the District of Columbia, Indiana, Iowa, Louisiana, Mississippi, North Carolina, and Washington benefit from the doctrine of *nullum tempus occurrit regi*—a doctrine Google ignores and that provides that limitations periods do not run against the State. *See Rowan Cty. Bd. of Educ. v. U.S. Gypsum Co.*, 418 S.E.2d 648, 652-58 (N.C. 1992); *Fennelly v. A-1 Mach. & Tool Co.*, 728 N.W.2d 163, 168 (Iowa 2006); *Solid Rock Ch., Disciples of Christ v. Friendship Pub. Charter Sch., Inc.*, 925 A.2d 554, 559 (D.C. 2007); *City of E. Chicago v. E. Chi. Second Century*, 878 N.E.2d 358, 380 n.21 (Ind. Ct. App. 2007), *rev’d on other grounds*, 908 N.E.2d 611 (Ind. 2009); *State v. LG Elecs., Inc.*, 375 P.3d 636, 641-44 (Wash. 2016); La. Const. Art. 12, § 13; Miss. Const. Art. 4, § 104; Miss. Code Ann. 15-1-51; Ariz. Rev. Stat. § 12-510; D.C. Code § 12-301; Wash. Code Civ. P. § 4.16.160. That rule defeats Google’s argument that those Plaintiffs’ state-law claims are untimely. And because the early RSAs are relevant to those state law claims, Google cannot keep that evidence from the jury.⁹

⁸ The other case Google cites, *Re/Max Int’l v. Realty One, Inc.*, 173 F.3d 995 (6th Cir. 1999), concerns a suit by a competitor, not a purchaser. *Id.* at 999-1001. “Although the business of a monopolist’s rival may be injured at the time the anticompetitive conduct occurs, a purchaser, by contrast, is not harmed until the monopolist actually exercises its illicit power to extract an excessive price.” *US Airways*, 2022 WL 874945, at *6 (quoting *Eastman Kodak*, 603 F.2d at 295).

⁹ For Indiana, *nullum tempus* applies only to its state-law antitrust claims, not its consumer protection claims.

Google’s treatment of North Carolina law (Mot. 14 n.15) merits particular discussion. N.C.G.S. § 75-16.2 provides a four-year limitations period for “any civil action” under the state antitrust and consumer protection laws. The statute means the opposite of what Google contends. The “any civil action” language is not specific enough to bind the State because it does not explicitly name the State as subject to the time limit. *See State Dept. of Health & Human Svcs. v. Thompkins*, 695 S.E.2d 133, 135-37 (N.C. 2010) (citations omitted); *see also id.* (limitations period for “all claims” does not override *nullum tempus*). North Carolina’s state-law claims are not subject to a limitations period.

Accordingly, Google’s Motion on this ground should be denied.

IV. Google Is Not Entitled to Summary Judgment on Standing

Over two years ago, Google moved to dismiss the Developer Plaintiffs’ overcharge damages claims, including those relating to in-app content and subscription sales, on the theory that *only consumers* had standing to pursue them. Google told the Court that the “Supreme Court’s reasoning in *Apple [Inc. v. Pepper]* applies directly here, and bars Developer Plaintiffs’ damages claims . . . [because] consumers pay Google directly and then Google remits payment back to developers.” (3:20-cv-05792-JD, Dkt. 71-1 at 3 (“Google MTD”).) According to Google back then, “[t]he absence of an intermediary is dispositive.” (Google MTD at 3 (quoting *Pepper*).) Apparently not anymore. Google *now* contends that consumers “lack standing to recover antitrust damages for purchases of subscriptions and [IAPs]” because they do not “participate” in the market for in-app payment solutions, in which competition has been restrained. (Mot. 17.) Of course, IAPs comprise the vast majority of the commerce at issue. (Ex. 52 Rysman Rpt. ¶ 53 (nearly 86% of Google’s monthly app revenue comes from in-app content purchases).)

Google is wrong. Consumers who pay overcharges have antitrust standing because they *pay Google directly* for products that are priced above competitive levels due to Google’s antitrust violations. Because no “intermediary” stands between them and Google, consumers have antitrust standing. Google’s authority simply confirms this fact. And, in any event, consumers’ injuries are “inextricably intertwined” with Google’s anticompetitive conduct—including the tie-in of GPB for IAPs—such that they have standing under *McCready* and its progeny as well. Finally, federal rules cannot be used to bar state-law claims in jurisdictions, including California, that have expressly expanded consumer standing.

A. Consumers Have Standing To Recover Damages for IAPs and Subscriptions

Section 4 of the Clayton Act provides a broad right of action for redress of antitrust injuries: “any person who shall be injured in his business or property by reason of anything forbidden in antitrust laws may sue therefore.” 15 U.S.C. § 15(a). Congress enacted that provision specifically to “creat[e] an effective remedy *for consumers* who were forced to pay excessive prices by the giant trusts.” *Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters*, 459 U.S. 519, 530 (1983) (emphasis added). Thus, where a plaintiff “alleges a wrongful deprivation of her money because the price of the [product] she bought was artificially inflated by reason of respondents’ anticompetitive conduct, she has alleged an injury in her ‘property’ under §4.” *Reiter v. Sonotone Corp.*, 442 U.S. 330, 342 (1979). The Supreme Court has recognized one general exception: “when an antitrust violation occurs in a multi-tiered distribution system,” the *Illinois Brick* rule bars the claims of a consumer who buys from an innocent intermediary. *Del. Valley Surgical Supply Inc. v. Johnson & Johnson*, 523 F.3d 1116, 1122 (9th Cir. 2008).

In *Pepper*, the Supreme Court analyzed whether consumers such as those here have standing to bring claims for purchases they made through an app store like the Play Store. 139 S. Ct. at 1518-19. There, Apple argued that *Illinois Brick* barred consumers’ claims because app developers set app prices. *Id.* at 1519. The Supreme Court rejected this argument, holding that “iPhone owners pay the alleged overcharge directly to Apple. The absence of an intermediary is dispositive.” *Id.* at 1521. Indeed, the Court held that both consumers and developers could pursue damages against Apple: “[t]he consumers seek damages based on the difference between the price they paid and the competitive price. The app developers would seek lost profits that they could have earned in a competitive retail market. *Illinois Brick* does not bar either category of suit.” *Id.* at 1525.

Here, as in *Pepper*, consumers have standing to recover damages for IAPs and subscription purchases—just as Google acknowledged two years ago. Consumers paid money *to Google* for both initial downloads and IAPs of content or subscriptions. (Ex. 20 Loew Tr. 100:1-24 (Google collects payments for in-app content); Ex. 21 Singer Tr. 48:24-49:13 (“Google is brokering through the tie-in all of these in-app transactions. So I think the money is going to run through Google itself, and then . . . after Google takes its 30 percent take rate, it’s going to remit the residual to the developer.”).) For both

types of transactions, Google forced the consumer to use GPB, pursuant to a contract with Google governing the terms of payment. (Ex. 22 GOOG-PLAY3-000013195 (Google Payments Terms of Service).)¹⁰ And for both categories of transactions, consumers paid overcharges to Google because of its anticompetitive conduct.

Google tries to distinguish *Pepper* on the basis that the Court described Apple as a “monopolistic retailer,” arguing that “Plaintiffs here do not allege any market in which Google is a retailer to consumers of IAPs or subscriptions.” (Mot. 20.) But Google overlooks the “dispositive” fact: “the absence of an intermediary.” (Google MTD at 3 (quoting *Pepper*, 139 S. Ct. at 1521).) Nothing in *Pepper* turned on the allegation that Apple served as a “retailer.” What matters under *Pepper* is, as Google said two years ago, that “consumers pay Google directly and then Google remits payment back to developers.” (*Id.* (quoting *Pepper*, 139 S. Ct. at 1521).) This accords with longstanding precedent, such as *Royal Printing Co. v. Kimberly Clark Corp.*, 621 F.2d 323 (9th Cir. 1980), holding that if the violator transacts in different markets, including markets not restrained by the violation, it can be held liable at every level. *Id.* at 326 & n. 6; *see also In re Linerboard Antitrust Litig.*, 305 F.3d 145, 152 (3d Cir. 2002); *In re Sugar Indus. Antitrust Litig.*, 579 F.2d 13, 16-17 (3d Cir. 1978); *In re TFT-LCD (Flat Panel) Antitrust Litig.*, 586 F. Supp. 2d 1109, 1117-18 (N.D. Cal. 2008).

Google’s contrary reading of *Pepper* relies entirely on Google’s insistence that antitrust standing is limited to buyers or competitors in the relevant market where the defendant’s anticompetitive conduct occurs, ignoring that consumers are market participants and pay Google directly for IAPs and subscriptions, as discussed in Part B below. Yet this supposed requirement finds no support in the case law; in fact, the very cases Google cites expressly reject it. For instance, Google purports to quote *American Ad Management* in support of its argument that Plaintiffs can recover only for injuries in an antitrust market in which they buy or sell. (Mot. 17.) But that is the *opposite* of what the Ninth Circuit held. In *American Ad Management*, the Ninth Circuit rejected the notion that a plaintiff must be a “competitor or consumer” in the relevant market to have standing, describing it as nothing more than a “rough gloss on the *Associated General/Bhan* ‘market participant’ test.” *Am. Ad Mgmt., Inc. v. Gen.*

¹⁰ These terms apply to all Google Payments without specifically referencing GPB by name.

Tel. Co. of Cal., 190 F.3d 1051, 1057-58 (9th Cir. 1999) (“[I]t is not the status as a consumer or competitor that confers antitrust standing, but the relationship between the defendant’s alleged unlawful conduct and the resulting harm to the plaintiff.”). Consequently, the Ninth Circuit held that a broker had standing to challenge a restraint that lowered the price of ads and, in turn, plaintiff’s commissions—even though the broker did not buy or sell ads. *Id.* at 1057.

Google also points to *Glen Holly Entertainment v. Tektronix* for the proposition that “[c]onsumers in the market where trade is allegedly restrained are presumptively the proper plaintiffs to allege antitrust injury.” (Mot. 18 (quoting 343 F.3d 1000, 1008 (9th Cir. 2003))). Yet that case held it was an *error* to “limit a purchaser/consumer’s actionable antitrust injury to situations where the purchaser/consumer has made or intends to make purchases in the relevant market,” explaining that “this understanding of antitrust injury is too restrictive.” *Id.* at 1010.

Notably, Google concedes that consumers can pursue damages arising from app purchases. But under Google’s market definition, app purchases are made in the same market as in-app and subscription purchases. (Ex. 23 Tucker Rpt. ¶¶ 373-83 (“Plaintiffs’ Separation of the Android App Distribution and In-App Payment Processing Markets is Flawed”).) This means that, by Google’s logic, consumers would have antitrust standing to seek overcharge damages for IAPs and subscription purchases if Google were correct about the relevant market in this case. This convoluted result is precisely why antitrust standing does not turn on such distinctions: regardless of how the relevant market is defined, as “the immediate buyers from the alleged antitrust violators . . . [consumers] may sue.” *Pepper*, 139 S. Ct. at 1521.

B. Consumers “Participate” in the Market for In-App Payment Solutions

Even if *Pepper* did not establish that Plaintiffs have standing as direct purchasers, the Supreme Court has long recognized that even plaintiffs who make *no* purchases from a defendant have standing where their injury is—as here—“inextricably intertwined” with the conduct at issue. In *McCready*, a subscriber in an employee insurance plan challenged a scheme to restrict health insurance reimbursement for psychologists. 457 U.S. at 467. The defendants argued that the subscriber was not a psychologist or a buyer of health insurance, and therefore lacked antitrust standing. The Supreme Court disagreed. Because the denial of reimbursement was “the very means” by which the conspiracy was carried out, the subscriber’s injury was “a necessary step in effecting” the anticompetitive ends, and she had standing to

sue. As the Supreme Court explained, it was sufficient that the subscriber was “within that area of the economy endangered by th[e] breakdown of competitive conditions.” *Id.* at 479-80.

Shortly after *McCready*, the Ninth Circuit held that plaintiffs may have antitrust standing where “it is clear that their interests would directly be served by enhanced competition in the market,” even if they “are neither consumers nor competitors in the relevant market.” *Chelson v. Oregonian Pub. Co.*, 715 F.2d 1368, 1371 (9th Cir. 1983). The Ninth Circuit has applied this rule expansively. In *Ostrofe v. H.S. Crocker Co.*, for example, the court held that a whistleblower discharged by a cartel could essentially bring a wrongful termination claim under the Clayton Act. 740 F.2d 739, 745-46 (9th Cir. 1984). And in *L.A. Memorial Coliseum Commission v. NFL*, the Ninth Circuit ruled that a football venue could challenge an NFL rule affecting NFL members. 791 F.2d 1356, 1363 (9th Cir. 1984); *see also Ellis v. Salt River Project Agric. Improvement & Power Dist.*, 24 F.4th 1262, 1267, 1274-75 (9th Cir. 2022) (consumers’ injury “inextricably intertwined” with power company’s “unlawful scheme to reduce solar-energy competition”); *In re Tableware Antitrust Litig.*, 484 F. Supp. 2d 1059, 1066 (N.D. Cal. 2007) (consumers’ injury “inextricably intertwined” with boycott of retailer); *Visa U.S.A. Inc. v. First Data Corp.*, 2006 WL 1310448, at *9 (N.D. Cal. May 12, 2006) (merchant acquirer could pursue damages caused by restraint of competition in the market for network processing).

In this case, the harm to consumers is “integral” to, and “inextricably intertwined” with, Google’s unlawful conduct in the market for in-app payment solutions. *McCready*, 457 U.S. at 479, 484. Like *McCready*, collecting payments via GPB is “a necessary step in effecting the ends” of Google’s anticompetitive conduct, making plaintiffs’ injury “inextricably intertwined” with the violation. *Id.* Consumers must pay overcharges, to Google, every time they make an IAP or buy a subscription, even years after they download the relevant app from Google. Dr. Singer calculated “overcharges from the consumers’ perspective” (Ex. 21 Singer Tr. 54:13-20), while Dr. Rysman’s variety model showed how consumers would benefit in a world absent Google’s anticompetitive conduct through an increase in the supply of apps (Ex. 41 Rysman Tr. 286:5, 291:15-20). There is little doubt that consumers in this case would be “directly served by enhanced competition.” *Chelson*, 715 F.2d at 1371. Consumers accordingly have federal antitrust standing to seek damages in the in-app payment solution market.

C. Consumers Also Have Antitrust Standing in Repealer Jurisdictions

Google asserts in passing that its arguments apply equally to the Cartwright Act. (Mot. 18.) But the cases Google cites predate the California Supreme Court’s decision in *Aryeh v. Canon Business Solutions*, 55 Cal.4th 1185, 1195 (2013). Since then, federal courts in this district regularly reject Google’s position. See *In re Cal. Gasoline Spot Mkt. Antitrust Litig.*, 2022 WL 3215002, at *3 (N.D. Cal. Aug. 9, 2022); *In re Capacitors Antitrust Litig.*, 106 F. Supp. 3d 1051, 1073 (N.D. Cal. 2015). Furthermore, applying *Associated General Contractors* to the Cartwright Act here would undo California’s express expansion of consumer remedies. *Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 269 F. Supp. 2d 1213, 1224 (C.D. Cal. 2003) (“Under California law, an indirect purchaser participates (indirectly) as a customer in the relevant market, and thus may suffer a cognizable antitrust injury.”).¹¹ And Google ignores the dozens of other laws of the 38 jurisdictions other than California under which the States bring damages claims. Even if the Court accepted Google’s incorrect arguments about federal and California law, Google has not even carried its burden as the moving party with respect to these other jurisdictions. Accordingly, the Court should deny Google’s Motion on standing.

V. Google Is Not Entitled to Summary Judgment on Plaintiffs’ Tying Claims

Google argues that it should be granted summary judgment on Plaintiffs’ tying claims because “Google Play and GPB are not ‘two distinct products or services’” and Plaintiffs cannot show “that Google Play and GPB are tied.” (Mot. 20-24.) Google fails to show that no reasonable juror could disagree with its contentions, which require the resolution of disputed facts. In addition, the Ninth Circuit’s decision in *Epic v. Apple*, among other precedent, forecloses Google’s arguments. Indeed, Google relies on the district court’s findings in *Epic v. Apple* that the Ninth Circuit held were “either clearly erroneous or incorrect as a matter of law.” 2023 WL 3050076, at *28.

A. Google Play and GPB Are Separate Products

Google contends that Google Play and GPB are not separate products. (Mot. 20-23.) The Ninth Circuit expressly rejected a substantively identical contention in *Epic v. Apple*. There, the Ninth Circuit held that Apple’s “App Store and [Apple’s payment solution] clearly can be separated because Apple

¹¹ *Metro-Goldwyn-Mayer* is otherwise inapposite as it concerned the operator of a platform used to distribute copyrighted works attempting to challenge a refusal to license copyrighted works to a licensor that used the platform. 269 F. Supp. 2d at 1217, 1220.

1 *already does* so in certain contexts, namely that [Apple’s payment solution] is not required for in-app
 2 purchases of physical goods.” 2023 WL 3050076, at *28 (emphasis in original).

3 The same is true for Google—it has never required developers selling or consumers buying
 4 physical goods to use GPB, and indeed *forbids* its use for such transactions. (Ex. 25 Payments Policy.)
 5 It was only after this litigation was filed that Google began requiring developers selling digital content
 6 that may be “consumed outside the app itself” to use GPB, and accordingly, consumers were only then
 7 required to use GPB to purchase such content. (Ex. 26 GOOG-PLAY-000064254 at -4254 (Prior
 8 Payments Policy).) And prior to 2012, Google did not require *any* developer to use GPB. (Ex. 50
 9 Android Developers Blog, “In-App Billing on Android Market: Ready for Testing.”) *See Epic v. Apple*,
 10 2023 WL 3050076, at *28 (discussing Apple’s historical practice of “permit[ing] developers to use their
 11 own in-app payment systems”). In fact, Google did not offer in-app payment processing until years *after*
 12 launching its app store. (Ex. 42 Android Developers Blog, “Android Market: Now available for users”;
 13 Ex. 28 Android Developers Blog, “In-app Billing Launched on Android Market.”)

14 As in *Epic v. Apple*, the evidence here also shows there is substantial demand for non-GPB
 15 payment systems. 2023 WL 3050076, at *28. Many developers now subject to Google’s tie historically
 16 have used non-GPB systems (exclusively or alongside GPB), including Match,¹² Spotify, [REDACTED]
 17 [REDACTED] Epic Games, [REDACTED] and even [REDACTED] (Ex. 44 GOOG-
 18 PLAY-000838161 at -8161; Ex. 29 GOOG-PLAY-007346079 at -6084, -6087 to -6088; *see also* Ex. 30
 19 Feng Tr. 173:23–174:10, 223:20–225:8, 306:25–307:4; Ex. 45 GOOG-PLAY-003334312 at -4314.)

20 Developers (including Match and Spotify) have also expressly requested to use their own non-
 21 GPB systems. (Ex. 49 GOOG-PLAY-011270137 at -0139 to -0140 (email to Google requesting that
 22 Match continue using non-GPB systems); Ex. 31 Alzetta Tr. 32:2-17 (discussing agreement allowing
 23 Spotify to use non-GPB systems); *see also* Ex. 10 Kochikar Tr. 252:23-253:1.) Further, in 2022, Google
 24 introduced the User Choice Billing program, which allows certain developers to offer non-GPB systems
 25 alongside GPB and allows consumers to decide which payment solution to use—further showing there
 26

27 ¹² For example, Match.com and OurTime have offered non-GPB payment systems since the apps
 28 were first published on Google Play in 2010 and 2014, respectively. (Match Dkt. 12-2
 Foster Decl. ¶¶ 32, 33, 36.)

1 is separate demand. (Ex. 32 “Enrolling in User Choice Billing Pilot.”)

2 Google cites *Rick-Mik Enterprises, Inc. v. Equilon Enterprises LLC*, 532 F.3d 963 (9th Cir.
3 2008), to argue that Google Play and GPB are not separate products “as a matter of law.” (Mot. 20-21.)
4 To start, this is a question of fact. *Image Tech. Serv., Inc. v. Eastman Kodak Co.*, 903 F.2d 612, 615-16
5 (9th Cir. 1990) (“Kodak’s argument [that two products form a single product market] presents, at best,
6 a disputed issue of fact.”), *aff’d*, 504 U.S. 451 (1992). *Rick-Mik* also is factually inapposite because,
7 unlike here, it involved a franchise, which “almost by definition, necessarily consist[s] of ‘bundled’ and
8 related products or services—not separate products.” 532 F.3d at 974.

9 If anything, *Rick-Mik* supports Plaintiffs. It instructs courts to consider “‘indirect evidence of
10 consumer demand for the tied product separate from the tying product.’” 532 F.3d at 975. That “includes
11 firm behaviors,” including whether “‘competitive firms always bundle the tying and tied goods’
12 together.” *Teradata Corp. v. SAP SE*, 2018 WL 6528009, at *12 (N.D. Cal. Dec. 12, 2018) (quoting
13 *Rick-Mik*, 532 F.3d at 965). Here, other Android app stores have distributed apps without offering in-
14 app billing services. (See Ex. 33 Dury Tr. 33:14-16; Ex. 34 Christopolous Tr. 215:5-216:4.) And in-
15 app billing service providers exist that do not distribute apps. (See Ex. 52 Rysman Rpt. ¶ 247 (discussing,
16 e.g., Square’s In-App Payments API).)

17 In sum, the evidence Plaintiffs offer now—at the summary judgment stage—is even stronger
18 than the evidence on which the Ninth Circuit relied to find separate products following a full bench trial
19 in *Epic v. Apple*. Summary judgment, therefore, is inappropriate.

20 **B. Google Coerces Use of GPB**

21 Google also argues there is no “tie” because Google does not “coerce or force” *all* developers
22 that use Google Play to use GPB; rather, “[m]any” apps are “available for free and do not monetize in-
23 app activity.” (Mot. 23.) Again, Google relies on a portion of the district court decision in *Epic v. Apple*
24 that the Ninth Circuit expressly rejected. Like Google, Apple argued “that there is no tie because
25 ‘thousands of developers . . . offer no [IAPs]’” and are therefore not required to use Apple’s payment
26 system. *Epic v. Apple*, 2023 WL 3050076, at *28 n.20. The Ninth Circuit easily disposed of this
27 argument in a footnote, explaining that Apple’s developer agreement “essentially provides: ‘Apple will
28 sell your app-distribution transactions only if you buy your in-app-purchase processing *requirements*

from Apple.” *Id.* The same is true here: if a developer on Google Play (such as Match) offers digital goods for sale in the app, Google forces that developer to use GPB as the payment solution. (*See* Ex. 51 DDA Section 4.1; Ex. 25 Payments Policy (Google webpage explaining that “[s]tarting June 1, 2022, any app that is still not compliant will be removed from Google Play”); Ex. 35 GOOG-PLAY-011378120 at -8122 (email from Google threatening to remove the Bandcamp app from Google Play if it did not integrate GPB).) Moreover, Google does not claim there is a technological need for the tie.

Regardless, whether Google coerces the use of GPB is a question of fact that should not be resolved at summary judgment. *See Cascade Health Sols. v. PeaceHealth*, 515 F.3d 883, 914 (9th Cir. 2008) (reversing summary judgment on tying claim in part because of disputed fact issues regarding coercion). For example, Google argues that “developers can pursue many monetization strategies beyond the sale of [IAPs]” that do not require use of GPB. (Mot. 24.) But triable issues of fact exist as to whether developers can avoid Google’s tie by implementing these monetization strategies without facing unreasonable hurdles or costs. *See Aerotec*, 836 F.3d at 1179 (a tie exists “when a seller ‘adopts a policy that makes it unreasonably difficult or costly to buy the tying product . . . without buying the tied product.’”). Match, for example, has developed its business based on an IAP monetization strategy that it implemented more than a decade ago and have invested significant resources, time, and money to develop and maintain. (*See, e.g.*, Match Dkt. 12-2 Foster Decl. ¶¶ 32, 33, 36.) Epic Games, too, relies on an IAP monetization strategy for its mobile apps (Dkt. 378 Epic’s 2d Am. Compl.¶ 11(a); Dkt. 386 Defendants’ Answer to Epic’s 2d Am. Compl. ¶ 11; *Epic v. Apple*, 2023 WL 3050076, at *3), and it would not want to degrade its users’ experiences by including advertisements within its apps.

Google’s arguments for summary judgment as to Plaintiffs’ tying claim fail under Ninth Circuit precedent and ignore triable issues of material fact. This prong of Google’s Motion too should be denied.

VI. Google’s Motion Should Be Denied Under Rule 56(d)

On May 9, 2023, nine days before this opposition brief was due, Google informed Plaintiffs for the first time that “due to errors,” Google “will be producing additional documents in the coming weeks,” and that “Google’s prior collections did not include certain documents in Google Drive, including Microsoft Office and PDF files, as well as certain files located in shared/team drive folders.” (Ex. 37 May 9, 2023 Email from G. Pomerantz to Plaintiffs and May 10, 2023 Letter from G. Bornstein to

Google; *see also* Ex. 38 May 18, 2023 Letter from G. Bornstein to Google.) Google has since confirmed that to date, it has identified at least 160,000 custodial documents that hit on Plaintiffs’ search terms and that it had failed to collect and review, and that the final count will be higher—potentially significantly so. Google also confirmed that these errors affected *every* custodian’s collection because, among other “errors,” Google failed to collect documents from the custodians’ hard drives. Google has not yet produced any of these newly collected documents.

Federal Rule of Civil Procedure 56(d) permits courts to deny a summary judgment motion if the non-moving party shows that “it cannot present facts essential to justify its opposition.” Fed. R. Civ. P. 56(d). “[S]ummary judgment is disfavored where relevant evidence remains to be discovered.” *Kauffman-Stachowiak v. Omni Hotels Mgmt. Corp.*, 2016 WL 4269504, at *7 (N.D. Cal. Aug. 15, 2016). While Google’s Motion should be denied for the reasons explained above, it would be manifestly unfair to Plaintiffs for the Court to enter judgment in favor of Google on any of Plaintiffs’ claims when Google failed to produce these documents nearly two years after representing to the Court that it had “completed substantial production of custodian documents” (Dkt. 56 at 3), in addition to the numerous Chats that Google intentionally destroyed.¹³

CONCLUSION

Google’s Motion for Partial Summary Judgment should be denied in its entirety.

¹³ Deferral of the motion would be an inadequate remedy. Plaintiffs intend to try this case in November as the Court has ordered. The schedule should not be placed at risk due to Google’s late production of documents.

1 Dated: May 18, 2023

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E-FILING ATTESTATION

I, Gary A. Bornstein, am the ECF User whose ID and password are being used to file this document. In compliance with Civil Local Rule 5-1(h)(3), I hereby attest that each of the signatories identified above has concurred in this filing.

/s/ Gary A. Bornstein

Gary A. Bornstein

Exhibit D2

Public Redacted Version

EXHIBIT 1

1
2 UNITED STATES DISTRICT COURT
3 FOR THE NORTHERN DISTRICT OF CALIFORNIA
4 SAN FRANCISCO DIVISION

5 -----X
6 IN RE GOOGLE PLAY STORE Case No.
7 ANTITRUST LITIGATION 3:21-md-02981-JD

8 THIS DOCUMENT RELATES TO:

9 Epic Games Inc. v. Google LLC, et al.,
Case No: 3:20-cv-05671-JD

10 In re Google Play Consumer
11 Antitrust Litigation,
Case No: 3:20-cv-05761-JD

12 In re Google Play Developer
13 Antitrust Litigation,
Case No: 3:20-cv-05792-JD

14 State of Utah, et al., v.
15 Google LLC, et al.,
Case No: 3:21-cv-05227-JD

16 -----X

17
18 *HIGHLY CONFIDENTIAL - UNDER PROTECTIVE ORDER*

19
20 REMOTE VIDEOTAPED DEPOSITION BY VIRTUAL ZOOM OF
21 JAMES KOLOTOUROS
22 February 2, 2022
23 9:01 a.m. Eastern Standard Time
24

25 Reported by: Fran Insley

1
2 Daniel Ottaunick, also Cravath.

3 MR. J. BYARS: John Byars from
4 Bartlit Beck LLP on behalf of consumers.

5 MR. BATES: Good morning. Kyle
6 Bates from Hausfeld for developers and
7 with me is my colleague, Amy Ernst, also
8 from Hausfeld.

9 MR. ALTEBRANDO: Michael Altebrando
10 on behalf of the State of Utah and the
11 plaintiff states.

12 MR. POMERANTZ: All right. If
13 that's all the plaintiffs, I'm Glenn
14 Pomerantz on behalf of the defendants and
15 also representing Mr. Kolotouros at this
16 deposition. Here with me is my colleague,
17 Nick Sidney, and also appearing for Google
18 is Kate Smith, in-house counsel.

19 THE VIDEOGRAPHER: Thank you,
20 counsel. The parties have stipulated and
21 agreed that the court reporter may take
22 the deponent's oath remotely. Will the
23 court reporter please swear in the
24 witness.

25 J I M K O L O T O U R O S ,

1 KOLOTOUROS - HIGHLY CONFIDENTIAL
2 the Witness herein, having first been duly
3 sworn by the Notary Public, was examined and
4 testified as follows:

5 EXAMINATION BY MS. MOSKOWITZ:

6 Q. Good morning, Mr. Kolotouros.

7 A. Good morning.

8 Q. I've just said your name, but if you
9 wouldn't mind, please, stating your name, full
10 name for the record.

11 A. Jim Kolotouros.

12 Q. And can you provide your address?

13 A. My home address or my current
14 address for the -- where I'm seated?

15 Q. I was going to ask where you were
16 currently sitting second, but if you could give
17 your work or home address as you prefer.

18 A. I am currently in the law offices of
19 Morgan Lewis on 1400 Page Mill Road in Palo
20 Alto, and my work address is 1600 Amphitheater
21 Parkway, Mountain View, California, 94043.

22 Q. Is there anyone in the room with you
23 now?

24 A. No, there is not.

25 Q. If someone does enter the room, do

1 KOLOTOUROS - HIGHLY CONFIDENTIAL
2 been any references by LG, Motorola, or Lenovo
3 to us with respect to Epic and Chris did not
4 recall any references by LG, Motorola, or
5 Lenovo. And we also discussed the extent to
6 which in the premier tier of their revenue
7 share deals, there were devices which those
8 OEMs did not elect to include in their premier
9 tier as part of the revenue share deal.

10 Q. Anything else that you can recall
11 discussing with Mr. Li?

12 A. No, not -- not in that meeting, no.

13 Q. And you only had one meeting with
14 him in preparation for your corporate testimony
15 today?

16 A. That is correct.

17 Q. Can you tell me what you recall
18 about your discussion with Mr. Kawamura for
19 your testimony here today?

20 A. We discussed the Sony and Sharp
21 revenue share deals that he had worked on when
22 they were signed in 2020, I believe, and the
23 extent to which there might have been
24 conversations related to -- or that they had
25 with us in connection with Epic that he did not

1 KOLOTOUROS - HIGHLY CONFIDENTIAL

2 recall having any in.

3 Q. In terms of Samsung specifically,
4 were there any of these meetings that you used
5 to get up to speed and prepare to testify as a
6 corporate representative about?

7 A. No, not with -- not with Chris Li or
8 the other two sets of people.

9 Q. Did you do anything to prepare to
10 testify as to Google's relationship with
11 Samsung?

12 A. I did not.

13 Q. Just going back to the specific
14 notice. Do you still have that open in front
15 of you?

16 A. I do, yes.

17 Q. If you can scroll down -- not
18 scroll. It's the same page, topic 15. Do you
19 see that topic?

20 A. Yes.

21 Q. And are you aware that you were
22 designated by Google to testify on this topic
23 as well?

24 A. Yes.

25 Q. And then finally to close up this

1 KOLOTOUROS - HIGHLY CONFIDENTIAL

2 A. If it's between a folder and an
3 application, it's hard to tell what a user is
4 likely to know is in the folder. I don't think
5 users know what's in the folder except that it
6 has some Google services there. So, I think,
7 again, it's the relevant -- relativeness of
8 what else is available or present to the user
9 that the OEM decides on their side.

10 Q. Let's skip the folder then. Google
11 Play is not in the folder, it's the actual icon
12 that needs to be installed on the default home
13 screen under the MADA, correct?

14 A. That is correct.

15 Q. And it's required to be on the home
16 screen as opposed to a later screen because
17 users are more likely to see and use it when
18 it's on the default home screen, right?

19 A. I think that's for the Play Store, I
20 think that's fair, yes.

21 Q. And in terms of the folder then
22 again, the folder that contains various Google
23 apps, you do not have a view that it is better
24 to have that folder on the home screen than it
25 is to have that folder on a later screen?

1 KOLOTOUROS - HIGHLY CONFIDENTIAL

2 look at a specific agreement.

3 Q. I'm trying to understand whether
4 it's your position that when an app -- when a
5 device is enrolled in an RSA of any sort,
6 whether it's your position that an OEM is never
7 prevented from installing a competing app to a
8 Google app?

9 A. That is incorrect.

10 Q. There are such restrictions in
11 certain tiers for devices enrolled in those
12 tiers, correct?

13 A. Not for all Google apps on the
14 device, no.

15 Q. For certain Google apps, there are
16 such restrictions that prevent OEMs from
17 agreeing to preinstall apps that compete with
18 those apps?

19 A. To the extent the OEM elects to
20 enroll a device in a revenue share tier above
21 the basic core optimized, there are for
22 specific applications or utilities restrictions
23 on what else could be preloaded by the OEM;
24 that is correct.

25 Q. The bottom of this executive summary

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2 summarizes the asked the business council; is
3 that right?

4 A. Yes.

5 Q. And the idea here is that Google
6 asked -- the Google team asked the business
7 council for permission to send [REDACTED] in
8 2020 which would grow to [REDACTED] in 2023;
9 is that right?

10 A. Yes, that's what the slide says.

11 Q. And all of that money would take the
12 form of revenue share both from Google Search
13 and Google Play for devices enrolled, correct?

14 A. I believe that is correct, yes.

15 Q. And it says here that "Google would
16 pay revenue share to secure platform
17 protections for Search and Play and critical
18 acts protections on more devices." Do you see
19 that?

20 A. Yes.

21 Q. So this revenue share that was being
22 requested would secure protection for Google
23 Play, correct?

24 A. It would secure platform defaults
25 for Search and device by device -- on a device

1 KOLOTOUROS - HIGHLY CONFIDENTIAL
2 by device basis preinstall prominens for Play;
3 that is correct.

4 Q. Not only preinstallation but
5 exclusivity at some of the tiers for Google
6 Play, correct?

7 A. As part of the out of box
8 experience, there would be a limitation on
9 other applications or utilities with package
10 install permissions; that is correct.

11 Q. And again the second bullet here
12 specifically says that there would be an
13 additional amount of revenue share that would
14 be offered to secure Play exclusivity, right?

15 A. On the second bullet?

16 Q. Yes. Under the ask?

17 A. Yes, that speaks to the terms that
18 would be associated with some deals.

19 Q. And one of those terms is Play --
20 Google Play exclusivity, correct?

21 A. As part of the out of box
22 experience, yes.

23 Q. Meaning no other app store or app
24 launcher or app installer could be preinstalled
25 by an OEM who had enrolled into this tier,

1 KOLOTOUROS - HIGHLY CONFIDENTIAL

2 correct?

3 A. To the extent the OEM enrolled a
4 device, a specific device within this
5 particular tier, there would be an out of box
6 restriction on the ability to preload other
7 apps with install package permissions.

8 Q. Including app stores for example?

9 A. Yes.

10 Q. So the first bullet refers to the
11 platform tier, that is the entry level tier,
12 proposed entry level tier of the RSA?

13 A. That is correct, yes.

14 Q. And the -- it's referenced to be a
15 platform tier because the change here was
16 instead of allowing OEMs to opt into an RSA on
17 a device by device basis, they would have to go
18 into this basic level of RSA across all of that
19 OEM devices, correct?

20 A. Across all of their Android
21 compatible GMS devices, correct, correct.

22 Q. And that OEM had already entered
23 into an ACC to prevent fragmentation, correct?

24 A. To prevent developer fragmentation.
25 That is correct, yes.

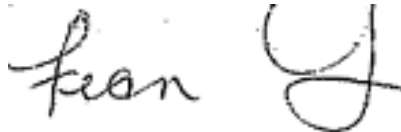
C E R T I F I C A T E

I, FRAN INSLEY, hereby certify that the Deposition of JAMES KOLOTOUROS was held before me on the 2nd day of February, 2022; that said witness was duly sworn before the commencement of testimony; that the testimony was taken stenographically by myself and then transcribed by myself; that the party was represented by counsel as appears herein;

That the within transcript is a true record of the Deposition of said witness;

That I am not connected by blood or marriage with any of the parties; that I am not interested directly or indirectly in the outcome of this matter; that I am not in the employ of any of the counsel.

IN WITNESS WHEREOF, I have hereunto set my hand this 3rd day of February, 2022.



FRAN INSLEY

1
2 UNITED STATES DISTRICT COURT
3 FOR THE NORTHERN DISTRICT OF CALIFORNIA
4 SAN FRANCISCO DIVISION

5 -----X
6 IN RE GOOGLE PLAY STORE Case No.
7 ANTITRUST LITIGATION 3:21-md-02981-JD

8 THIS DOCUMENT RELATES TO:

9 Epic Games Inc. v. Google LLC, et al.,
Case No: 3:20-cv-05671-JD

10 In re Google Play Consumer
11 Antitrust Litigation,
Case No: 3:20-cv-05761-JD

12 In re Google Play Developer
13 Antitrust Litigation,
Case No: 3:20-cv-05792-JD

14 State of Utah, et al., v.
15 Google LLC, et al.,
Case No: 3:21-cv-05227-JD

-----X

16
17 *HIGHLY CONFIDENTIAL - UNDER PROTECTIVE ORDER*

18
19 REMOTE VIDEOTAPED DEPOSITION BY VIRTUAL ZOOM OF
20 JAMES KOLOTOUROS
21 VOLUME II
22 February 3, 2022
23 9:02 a.m. Pacific Standard Time
24

25 Reported by: Fran Insley

1
2 THE VIDEOGRAPHER: Good morning.
3 Here begins Volume II of the video
4 recorded virtual remote individual and
5 30(b)(6) deposition of Jim Kolotouros
6 appearing for Google, Inc. from his
7 location in Palo Alto, California. This
8 deposition is taken by the plaintiffs In
9 RE: Google Play Store Antitrust
10 Litigation. Case No. 3:21-md-02981-JD in
11 the United States District Court, Northern
12 District of California.

13 Today is Thursday, February 3rd,
14 2022. The time is approximately 9:02 a.m.
15 Pacific Standard time. My name is Howard
16 Brodsky and I'm the legal video specialist
17 in association with Veritext Legal
18 Solutions with offices located in New
19 York, New York. The court reporter is
20 Fran Insley in association with Veritext.

21 All appearances remain the same as
22 in Volume I of this proceeding and the
23 witness has been sworn under oath to be
24 truthful on the record. Please proceed.

25 J I M K O L O T O U R O S,

1 KOLOTOUROS - HIGHLY CONFIDENTIAL
2 the Witness herein, having been previously
3 sworn by the Notary Public, was examined and
4 testified as follows:

5 CONTINUED EXAMINATION BY MS. MOSKOWITZ:

6 Q. Good morning, Mr. Kolotouros.

7 A. Good morning or good afternoon.

8 Q. Thank you. You are aware that you
9 are still under oath from yesterday's swearing?

10 A. I am.

11 Q. And do you agree to all of the same
12 sort of ground rules that we discussed earlier
13 yesterday?

14 A. I do.

15 Q. Thank you. If you could go into
16 your -- and do you understand that you are
17 still testifying as a 30(b)(6) witness for the
18 moment?

19 A. I do.

20 Q. Thank you. Can you please go into
21 your Exhibit folder and you should see -- this
22 is for today's, Exhibit 626. For the record,
23 it's Google Play 000416651 through 6697. Do
24 you see that?

25 (Whereupon Exhibit 626 was marked

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2 Q. And he says, "If exclusivity is
3 overreach, defaulted and prominent placement
4 would be great;" is that correct?

5 A. That is correct, yes.

6 Q. And then you say, "Let's shoot for
7 3rd party protection and user-friendly/idyllic
8 implementations from the get-go"?

9 A. Yes.

10 Q. Correct? And second line, "Can you
11 reflect those terms in the term sheet? Or let
12 Sidney know to include it;" is that correct?

13 A. Yes.

14 Q. And is Sidney, Sidney Lee?

15 A. That is correct, yes.

16 Q. Okay. And then above, Lucy Jin
17 e-mails saying, "Jim, we are working on
18 refining the language and will have it ready
19 before EOD and reflected in the Term Sheet,"
20 and EOD stands for end of day; is that correct?

21 A. That is correct.

22 Q. And then she asks a question, second
23 paragraph, "Quick clarification, when you say
24 1st party vs. 3rd party exclusivity, the 3P
25 obviously refer to non-Google, non Xioami

1 KOLOTOUROS - HIGHLY CONFIDENTIAL
2 services such as Amazon. But for 1st party
3 exclusivity, do you mean Xioami's 1P services;"
4 is that correct?

5 A. Yes.

6 Q. So, she reads this to be in relation
7 to an exclusivity term that would impact
8 Amazon; is that correct?

9 A. That is correct, yes.

10 Q. Okay. And above that you reply
11 with, "Your interpretation is correct," is that
12 right?

13 A. Yes.

14 Q. So, under this framework, Xiaomi can
15 put its own AOSP version of Lens on the devices
16 as long as it was not in default; is that
17 correct?

18 A. Xiaomi could under -- I don't know
19 what funding made its way into the term sheet
20 or what finally was manifested in the contract,
21 but it would imply that it would be Google's VR
22 or visual search product as the default and
23 with Xiaomi's alongside of another default.

24 Q. Okay. Thank you. So, Xiaomi could
25 not preload Amazon's competing products under

1 KOLOTOUROS - HIGHLY CONFIDENTIAL
2 this agreement as it is being discussed in this
3 e-mail; is that correct?

4 A. To the extent that Xiaomi elected to
5 enroll the device in the tier within which this
6 term was included, that enrollment would
7 preclude the presence or preload of the Amazon
8 service out of box.

9 Q. And so earlier you mentioned that
10 this was just about Lens, Google Lens, the
11 exclusivity provisions being discussed; is that
12 correct?

13 A. I believe so, yes.

14 Q. But did the agreement with Xiaomi
15 require exclusivity for any other Google apps
16 or Google Play?

17 A. I think that within the Xiaomi deal
18 there was a -- the Premier tier did include
19 exclusivity for additional services.

20 MR. ALTEBRANDO: Okay. Let's go off
21 the record for a minute and I'm going to
22 discuss with co-counsel before we talk
23 again. Thank you again, Mr. Kolotouros.

24 THE VIDEOGRAPHER: The time is
25 11:27. We are off the record.

1 KOLOTOUROS - HIGHLY CONFIDENTIAL

2 (Off the record.)

3 THE VIDEOGRAPHER: The time is
4 11:38. We are on the record.

5 Q. Thank you. Okay. So yesterday when
6 you were going through your CV with counsel for
7 Epic, you said you recalled putting together a
8 deck that was listed in your CV as Android 101;
9 is that correct?

10 A. That is correct.

11 Q. And you do recall that deck?

12 A. I do recall that deck, yes.

13 Q. And you said yesterday that you had
14 presented it internally at Google; is that
15 correct?

16 A. That is correct.

17 Q. If we could quickly go to
18 Plaintiff's Exhibit 647. It should already be
19 loaded because I loaded it before the break,
20 and I'll just read into the record that this is
21 Plaintiff's Exhibit 647 GOOG-PLAY-000128863.R.

22 A. It's still loading, so give me one
23 moment, please.

24 Q. And just for the record this is a
25 deck titled "Android 101" which the meta-data

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2 indicates was created around 5/15/2019.

3 (Whereupon Exhibit 647 was marked
4 for identification.)

5 A. Okay.

6 Q. And now that you have it up, is this
7 the deck that you were referring to?

8 A. Yes.

9 Q. Okay. And it says, "Prepared by the
10 Android Global Business Team (jimk,
11 lichristopher, sidneylee)."

12 A. Correct.

13 Q. So, this deck was prepared and
14 approved by yourself, Christopher Li, and
15 Sidney Lee; is that correct?

16 A. Yes.

17 Q. Okay. And this deck was created in
18 the ordinary course of business at Google; is
19 that correct?

20 A. Yes.

21 Q. If we could go down to 884.R.

22 A. Okay.

23 Q. Okay. And it says, "Android was
24 built to help secure more users for Google
25 services;" is that correct?

1 KOLOTOUROS - HIGHLY CONFIDENTIAL

2 A. Yes.

3 Q. On this chart there are subheadings
4 with titles like "Search" and "Assistant" with
5 icons underneath; is that correct?

6 A. Yes.

7 Q. And these icons appear to be
8 specific Google Play apps and services; is that
9 correct?

10 A. Yes.

11 Q. And the green bubbles indicate
12 contracts that govern that app for service in
13 the GMS; is that correct?

14 A. I'm sorry, can you repeat the
15 question, please?

16 Q. Of course. And the green bubbles
17 underneath those icons indicate contracts that
18 govern that app or service in GMS; is that
19 correct?

20 A. I think the green bubbles represent
21 different kinds of agreements that might
22 administer, if not the licensing, the promotion
23 of those apps, yes.

24 Q. Okay. And at the very bottom it
25 says, "Android also owns the API's,

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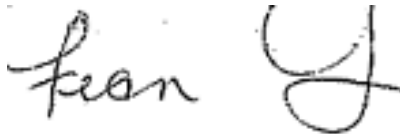
C E R T I F I C A T E

I, FRAN INSLEY, hereby certify that the Deposition of JAMES KOLOTOUROS was held before me on the 3rd day of February, 2022; that said witness was duly sworn before the commencement of testimony; that the testimony was taken stenographically by myself and then transcribed by myself; that the party was represented by counsel as appears herein;

That the within transcript is a true record of the Deposition of said witness;

That I am not connected by blood or marriage with any of the parties; that I am not interested directly or indirectly in the outcome of this matter; that I am not in the employ of any of the counsel.

IN WITNESS WHEREOF, I have hereunto set my hand this 4th day of February, 2022.



FRAN INSLEY

Exhibit D3

Public Redacted Version

EXHIBIT 2

Android 101

Prepared by Android Global Business team (jimk, lichristopher, sidneylee)
May 2019

Google

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Agenda

What is Android?

Why did we build it?

Where are we now?

Challenges and opportunities on the horizon

Google

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The Basics

What is Android? Overview of
Android, Google Mobile Services
(GMS), Compatibility, and
Fragmentation

Google

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Google Search and Services in early 2000s....

A SINGLE SERVICE ON A SINGLE WEBPAGE ON A SINGLE BROWSER ON A SINGLE OS



Evolution of a desktop strategy:

- We had access via Windows (IE) and then Mac (OS X/Safari) but always worried about getting blocked by 3rd party OS/browser platforms
- Netscape Navigator = Google's first search distribution deal. Firefox and Safari search deals came later
- Google Toolbar & Protector provided access to IE users
- Initiated Chrome browser so that i) service & feature innovation, and ii) user access to search/services would not be throttled by IE
- ChromeOS eventually evolved from Chrome browser

Google

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A very new landscape in 2007

Market Landscape: iPhone launches in June 2007 which accelerates adoption of smart devices on multiple platforms



Nokia



Samsung



Apple



Motorola



LG



Sony

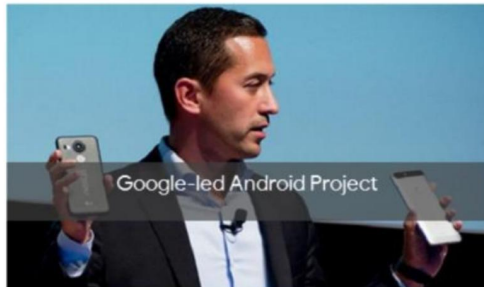
IMPLICATIONS

- Same platform concerns as desktop; access and innovation
- Impossible to scalably get great experiences/apps in front of users - app team had to optimize each app for every single device / platform permutation ("fragmentation")
- What can Google do to focus its solutions/services innovations?
- What would make sense for Google as an App developer?

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Android Open Source Project (AOSP) provided the solution to evolving market conditions for many...



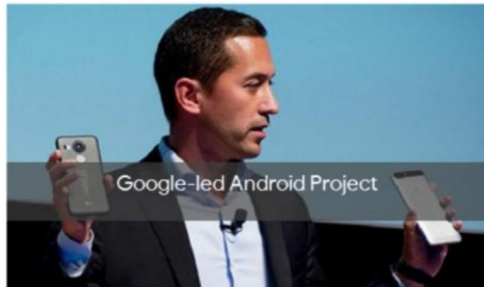
Operator	Handset Makers	Software Companies	Commercialization Companies	Semiconductor Companies
Supported by consortium of partners				

- **Created a solution to address platform and developer fragmentation:** Bought by Google in 2005
- **Ally with key ecosystem partners:** Created an alliance with a consortium of partners in 2007 to make an open source platform for ecosystem partners to participate and compete in the rapidly growing smartphone industry
- **Create friendly policies to encourage adoption by OEM's, developers, SOC's, etc.,:**

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Android Open Source Project (AOSP) provided the solution to evolving market conditions for many...



- **Created a solution to address platform and developer fragmentation:** Bought by Google in 2005.
- **Ally with key ecosystem partners:** Created an alliance with a consortium of partners in 2007 to make an open source platform for ecosystem partners to participate and compete in the rapidly growing smartphone industry.
- **Create friendly policies to encourage adoption by OEM's, developers, SOC's, etc.,**

Operator	Handset Makers	Software Companies	Commercialization Companies	Semiconductor Companies
SoftBank Sprint	HTC Motorola ASUS TOSHIBA	Google myriad noser	Amlogic BORQS noser	Intel ARM Qualcomm

Supported by consortium of partners

Make it open
source and
free

Google

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What is AOSP?



- The Android Open Source Project (AOSP) consists of 3 key elements:
 - (1) An operating system,
 - (2) middleware, and
 - (3) open-source apps (e.g., dialer, email, gallery, and messaging services).
- Manufacturers, carriers, and third-party developers can use these components as-is or can customize them into their own proprietary versions without a license from Google.
- Amazon is one example of a company which uses AOSP to built out their own proprietary version (FireOS)

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What is compatibility? Why & where does it matter?

Device compatibility is important to ensure that developers have confidence that their app will work perfectly on a specific form factor; it allows developers to focus their creativity and innovation while accessing a maximum universe of devices & users

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Compatibility stretches across different form factors as well

The Android platform works across several device form factors - **mobile devices (smart phones, tablets), wearables, TVs, and auto**; therefore, the Android compatibility requirements apply to these device types as well



Note: Wear, Auto, Audio, and TV are unique in that GMS-equivalents for wearables and TV's requires more than just a MADA (more on this later)

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Google Mobile Services (GMS) layered on top of AOSP



- The Android Open Source Project (AOSP) consists of 3 key elements:
 - (1) An operating system,
 - (2) middleware, and
 - (3) open-source apps (e.g., dialer, email, and messaging services).
- Manufacturers, carriers, and third-party developers can use these components as-is or can customize them into their own proprietary versions without a license from Google.
- Google Mobile Services (GMS) apps, in contrast, are Google's proprietary apps

Google

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AOSP and Google Mobile Services (GMS) are often inaccurately intermixed and misunderstood



OEMs can choose to load Google Mobile Service (GMS) on any (or none) of their devices to provide a more comprehensive out-of-box experience.

This point is not always well understood.

continued on next page

Android has created more choice, not less



It's easy for a mobile phone owner choosing one of the world's ten most popular mobile operators – one that has expanded the range of phones available around the world – to find the European Commission issued a competition decision against it, and, as a business model, "the decision gives a hint to other mobile phone companies what to do." The EC has the reputation of independence in the telecommunications market, and its unique confidence. A few months later, high-traffic mobile phone providers in 20 countries, in addition to mobile and mobile network operators who had not used mobile devices, in place of its development around the world who have built their businesses with mobile and mobile of consumers who can use their own cell phone and cutting-edge mobile smartphones.

Android provides choice

Google

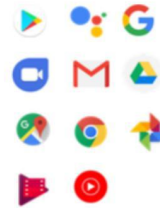
Confidential + Proprietary

We believed Google Applications would enhance the user experience on mobile phones and tablets

What is GMS?

- **GMS is a collection of Google applications** for Android
 - Most GMS apps are optional and available a la carte
 - Some GMS apps are only available in a bundle; but there is no obligation for OEM's to pre-load these
- GMS works beautifully on *compatible* Android smartphones / tablets and is intended to provide the best possible mobile experience on smartphones (feature phones are in play again too!)
- App updates are administered by Google Play
 - E.g., Google Maps cannot be updated on a device if Play is also not installed
- **There is not a single agreement with any OEM that requires them to pre-load any GMS app on their device**

GMS MANDATORY APPS



Google

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Google Play Services / GMS Core is an important element of Play

What is Google Play Services / GMS Core?

- Play Store provides a set of Google APIs that help support functionality of all Android applications (aka GMS Core APIs, Google Play Services)
 - Ads
 - Maps
 - Analytics
 - Location, etc.,
- Used by GMS, and hundreds of thousands of 3rd party apps
- 826 out of the top 1000 Android apps use 1 or more GMS Core APIs (Facebook, WhatsApp, Twitter, and many other apps)

GmsCore API Usage (3P)

• Only apps evaluated by Marmor (mostly limited to apps in active in Google Play Store)

Nr Applications using GmsCore API

	Count
- All	838,142
gms.ads	414,938
gms.common	353,387
gms.maps	184,292
gms.gcm	143,041
gms.analytics	97,374
gms.location	95,457
gms.plus	74,486
gms.games	52,085
gms.auth	38,121
gms.appstate	21,439
gms.internal	18,634
gms.io	8,449
gms.a	6,472
gms.wallet	4,537
gms.drive	4,263
gms.start	3,953
gms.wearable	3,853



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GMS requires signing a set of agreements with Google - ACC and MADA are the two main ones

Android Compatibility Commitment (ACC)

Mobile Application Distribution Agreement (MADA)

What does Google get



Compatibility: Company will **only distribute Android devices that are Android-Compatible Devices**. i.e., if a device uses Android (even without GMS), it must be compatible (pass the compatibility test suite; comply with CDD). Exceptions are granted on a case-by-case basis

but...

Companies do not need to sign any other agreements, such as MADA, although almost all OEMs take this step. Carriers and retailers do not/cannot sign the ACC



Pre-load + Placement: Pre-load i) GMS mandatory apps, and ii) search widget, Play store, and Google Collection on the default home screen (i.e., invoked by the home button)

MADA gives OEMs a device-by-device choice. OEM can pre-load any other application in addition to Google services; there's no obligation for an OEM to load GMS on any device. **Zero exclusivity within the MADA**

Google

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Common misconceptions with Android & GMS

STATEMENT	TRUE	FALSE	REALITY
If a partner signs up for a GMS license, all their devices must include GMS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Partner can choose whether or not to pre-load GMS onto their devices on a device-by-device basis
An Android device that does not have GMS pre-installed is a fork of Android	<input type="checkbox"/>	<input checked="" type="checkbox"/>	A device is defined as a fork of Android if the underlying ROM (software image) is not Android-compatible
Google requires some app exclusivity as part of the GMS licensing process	<input type="checkbox"/>	<input checked="" type="checkbox"/>	There are no exclusivity provisions as part of the MADA agreement. However, we do offer to select partners a revenue share opportunity in exchange for some exclusivity clauses. The revenue share agreement is separate from GMS licensing.

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So what is actually a forked device?

“ABI Research reports that forked Android or AOSP smartphones grew 20% sequentially from 1Q 2014 to 2Q 2014 (total market growth was 3% sequentially) and also accounted for **20% of the smartphone market.**”

[-ABI Research](#)



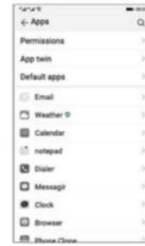
Xiaomi
MIUI



OnePlus
Oxygen OS



Amazon
Fire OS



Huawei
HongMeng OS

Google

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So what is actually a forked device?

“ABI Research reports that forked Android or AOSP smartphones grew 20% sequentially from 1Q 2014 to 2Q 2014 (total market growth was 3% sequentially) and also accounted for **20% of the smartphone market.**”

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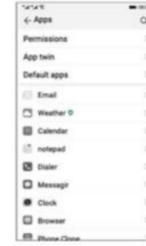
Xiaomi
MIUI



OnePlus
Oxygen OS



Amazon
Fire OS



Huawei
HongMeng OS

Google

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Huawei Case Study - what will they be able to do / not do?



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Benefits of Android

- Why did we build the platform?
- What's the macro relationship to Google?

Google

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Android was built to help secure more users for Google services...



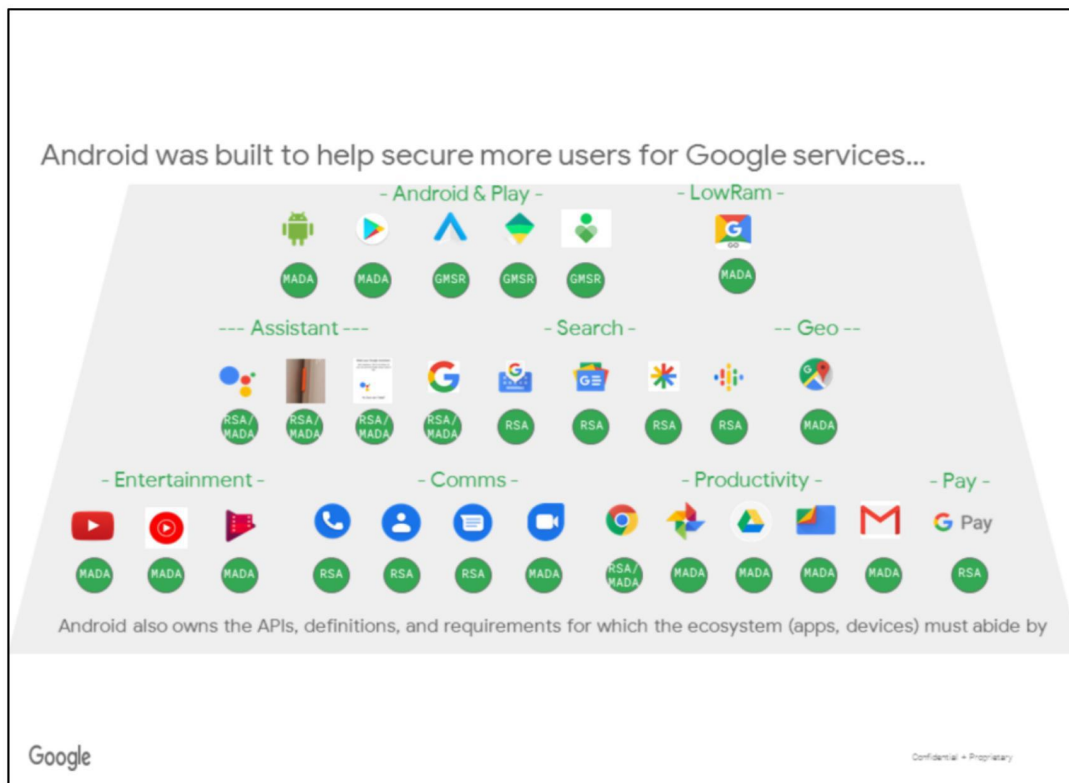
Tools and programs to make Google internet services successful

Preload	Default Intent	Placement (Hotseat, DHS)	First three + exclusivity
MADA	RSA	RSA	RSA
GMS Req	Program	Program	Program
RSA	Bespoke	Bespoke	Bespoke
Programs: GMS Express, A-Go			
Bespoke: Ex: "N50M", "Waterloo", "Optimus"			

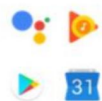
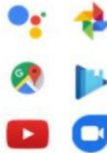
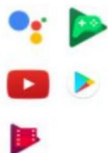
As baseline, apply MADA / GMS to 1B new device activations per year, and RSA / Programs / Bespoke to large subset of new activations

Google

Confidential + Proprietary



... across all device verticals



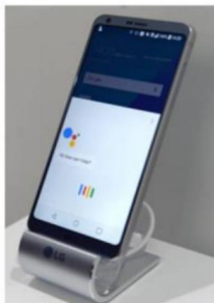
Note: only a sampling; not comprehensive

Google

Confidential - Proprietary

Case study: Assistant - quick ramp to 1B scale with increasing presence

Instant distribution
Long-press home & AGSA



Premium entry points
Dedicated H/W button



Increased presence
Built into OS, suggestion chips, ambient mode

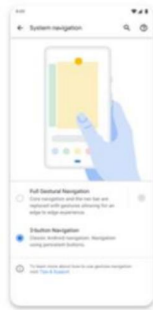


Google

Confidential - Proprietary

We also provide the guardrails for the platform (GMS Requirements)

One gesture please...



Digital well-being for users and control for parents



Safe driving



Fresh device software



Device preload safety



Google

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Ensuring our experiences are not throttled, even in unique circumstances

"Lenovo Smart Tab Powered by Amazon Alexa"
2-in-1 experience... dagagadg



Google

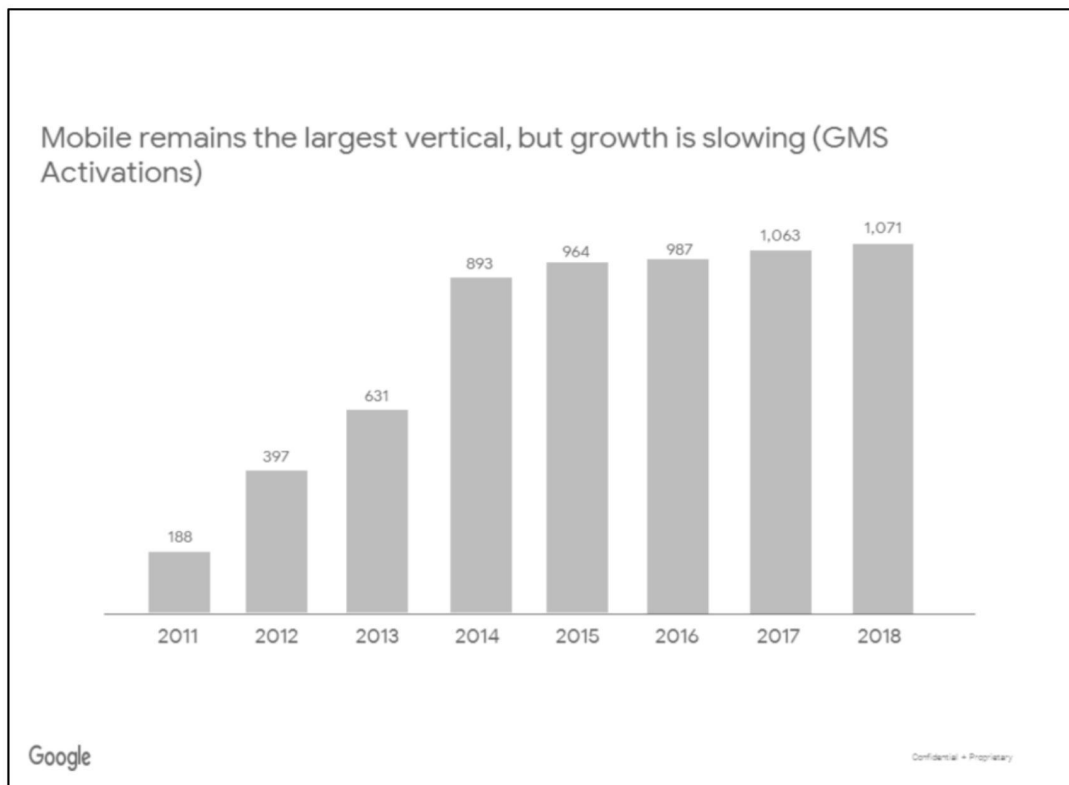
Confidential + Proprietary

Android Today

- Current lay of the land
- Key trends
- Where are things headed

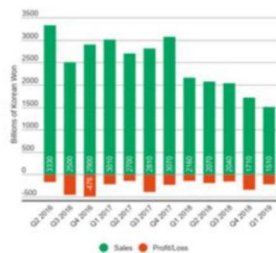
Google

Confidential - Proprietary

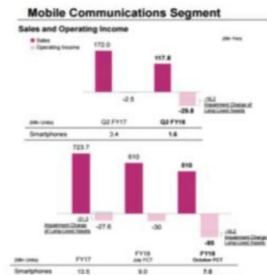


Profitability story remains challenging... may get worse over time

LG Mobile Financials



Sony Mobile Financials



Lenovo makes first mobile profit since Motorola buy

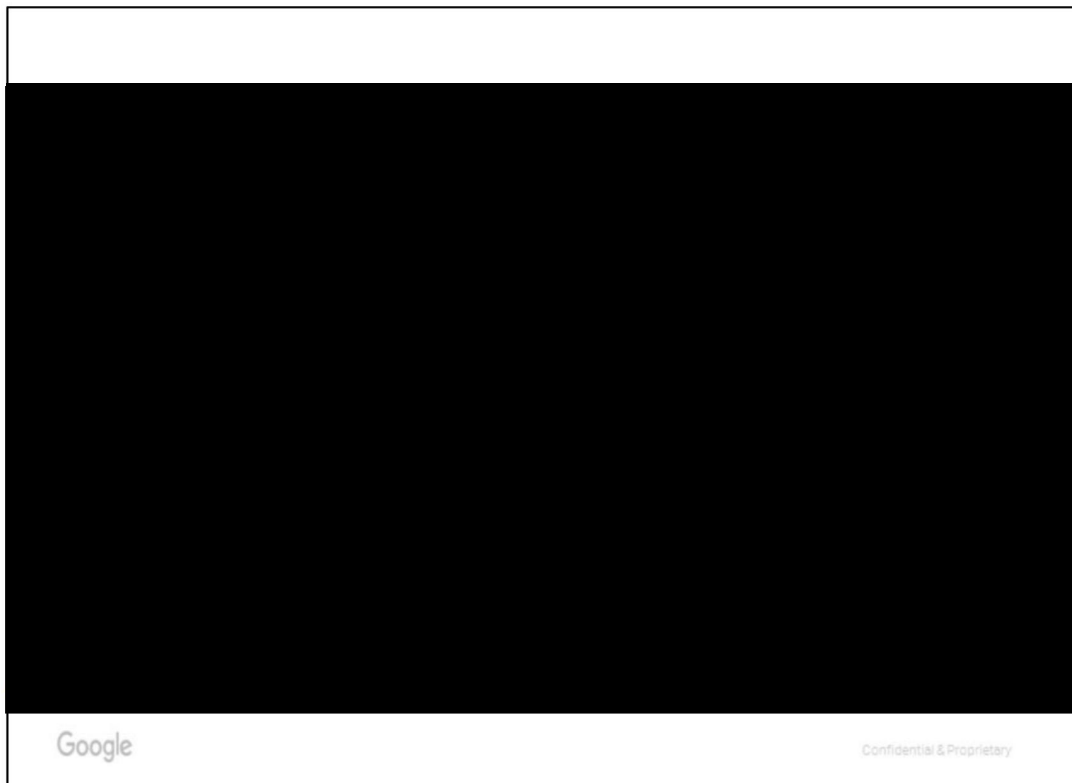


Google

Confidential + Proprietary

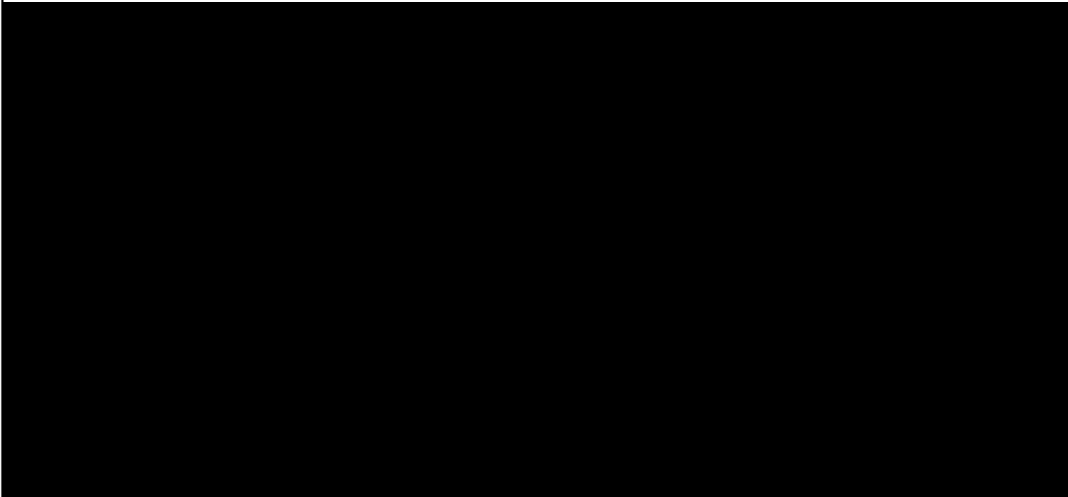


Note: "CN OEMs" inc. Xiaomi, Oppo, Vivo, Gionee, TCL, ZTE, Lenovo/Moto, Transsion, OnePlus, Coolpad, Wiko, and Meizu





Android share in select markets - OEM Portfolio balance a concern



Google

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Challenges on the horizon

- Regulatory (EEA, China)
- Balanced set of partners
- Keeping partners healthy
- Switching
- Alternate 3P platforms
- Execution

Google

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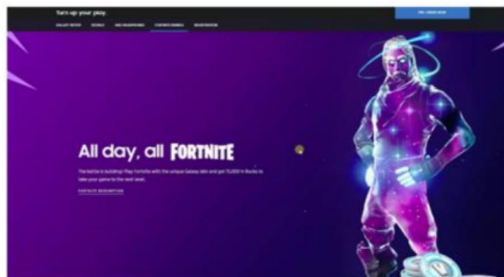
Regulatory



Google

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Keeping partners healthy, including financially



Google

Confidential - Proprietary



APPENDIX

Google

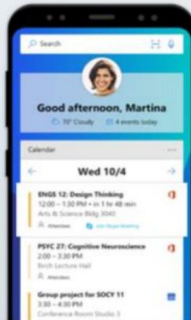
Confidential & Proprietary

Ambitious 3P Platforms



See what's important to you at a glance

Customize your feed to see the news, events, docs, and contacts you want to see, and remove the stuff you don't.



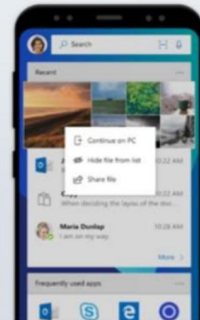
There's no place like Home screen

Customize your Android home screen with Microsoft Launcher custom set of wallpapers.



Take a photo on your phone, open it on your PC

Microsoft Launcher links your Android device and PC so you can open photos or docs on a bigger screen, instantly.



Google

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Execution - increasingly complex and difficult to align internally, but an opportunity as well



Google

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Strong growth in all Android verticals



2X M
activations / 12M



1 M
activations / 12M



XX M
activations / 12M



XX M
activations / 12M

Google

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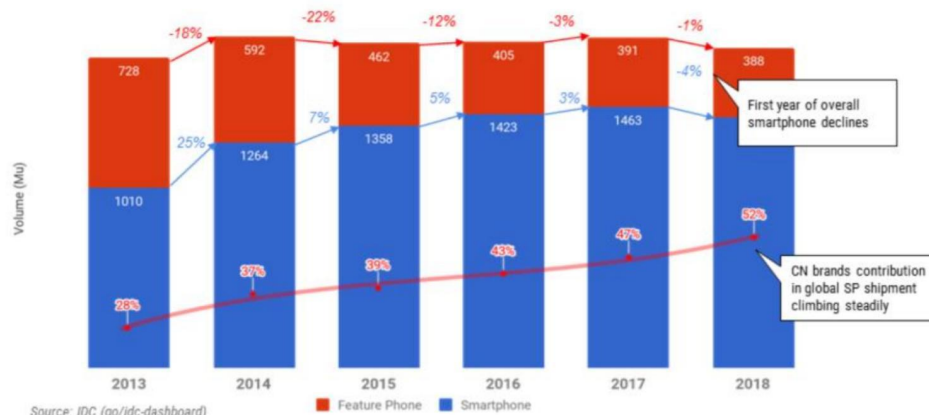
Id	Date	Text
2	06/19/2019 21:42:34	Jim to fill out
1	06/19/2019 21:42:43	Jim to fill out

Google

Confidential - Proprietary

SP & FP Markets Decline in 2018 with CN OEMs Share Rising

We are at single digit shipment growth overall. FP conversion is occurring, albeit slowly. Globally, top-6 OEMs to account for >65% market share and CN OEMs are expected to account for more than half of global SP shipment in '18. (TBD)



Google

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Android Compatibility Requirements

Believe this can be an appendix slide



1) Comply 100% with the requirements of the Compatibility Definition Document ("CDD")

2) Pass 100% of the Compatibility Test Suite ("CTS")
CTS is composed of 1000s of automated test cases to ensure compatibility with platform

Note: 1) Google updates CDD and CTS for each version of Android and releases them as part of AOSP. 2) Also, we do have a liberal exception/exemption policy to grandfather in older devices and/or address unique form factors

Google

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Review of hypothetical scenarios			
SCENARIO	YES	NO	NOTES
Can a mobile phone without Google Play and GMS core APIs run other Android apps?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Yes, as long as the apps don't require any APIs from GMS Core or they find ways to replicate API functionality (themselves or other 3P APIs)
Can someone effectively utilize GMS Core APIs without Google Play installed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No, the APIs require and use Play's infrastructure
If a device has Google Play illegally sideloaded, can it access GMS Core APIs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Can access GMS Core APIs, but we cannot validate the authenticity of the Core API functionality. This is why enforcing unlicensed devices is important.
Does Apple offer its own version of iOS "GMS Core APIs"?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	iOS has a similar API model, but there are less APIs and they do not offer as deep functionality

Google

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Many media-defined Android forks are in fact not forks and are compatible



Xiaomi
MIUI

NOT a FORK
- COMPATIBLE -



BLU
Cyanogen 12

NOT a FORK
- COMPATIBLE -



Amazon
Fire OS

ANDROID FORK
- INCOMPATIBLE -



OnePlus
Oxygen OS

NOT a FORK
- COMPATIBLE -

Google

Confidential - Proprietary

Exhibit D4

Public Redacted Version

EXHIBIT 4

Message

From: Lawrence Koh [lawrencekoh@google.com]
Sent: 2/13/2020 6:31:34 PM
To: Brian Brazinski [brazinski@google.com]; Christian Cramer [cramer@google.com]; Cyrus Jame [cyrous@google.com]; George Yousling [gyousling@google.com]; Josh OConnor [joshconnor@google.com]; Karan Gambhir [kgkaran@google.com]; Mike Marchak [marchak@google.com]; Purnima Kochikar [kochikar@google.com]; Tamar Fruchtman [tamarf@google.com]
Subject: Fwd: [Privileged & Confidential] Riot - Update

Privileged and confidential +Tamar Fruchtman for guidance

Per the other thread wanted to share some additional context on why changing the comarketing amount/structure for will be difficult so sharing this email thread from last March to help provide some context on how it eventually led to the GVP commercial offer that we're discussing right now.

tl;dr: [REDACTED]
 [REDACTED]. To convince Riot and their BoD to change their strategy, we tried putting our best foot forward with the following deal (this was pre-GVP/Project Hug being approved by BC) below in advance of the Riot board meeting that happened in early April last year.

[REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]

At this time, we didn't ask for contractual commitments [REDACTED] the focus was getting Riot to shift their focus away from launching their off-Play distribution platform. Once Riot agreed to put aside their off-Play distribution platform and launch on Play in April, we decided to move to the next phase of leveling up our partnership last summer with Riot by asking them to commit to the [REDACTED]
 [REDACTED]
 [REDACTED]

----- Forwarded message -----

From: Lawrence Koh <lawrencekoh@google.com>
Date: Sun, Mar 24, 2019 at 11:24 AM
Subject: Re: [Privileged & Confidential] Riot - Update
To: Jamie Rosenberg <jamiero@google.com>, Purnima Kochikar <kochikar@google.com>, Shafiq Ahmed <shafiqahmed@google.com>, Samer Sayigh <ssayigh@google.com>, Mike Marchak <marchak@google.com>, Karan Gambhir <kgkaran@google.com>, Bob Borchers <bborchers@google.com>, Andreas Preuer <andreaspreuer@google.com>
Cc: Tia Arzu <tiaa@google.com>

Hi everyone,

I just wanted to let everyone know that Riot will be making the decision to move forward with the Play partnership during their Board meeting on **Tues, April 9th**. The meeting was originally scheduled to happen early this week but due to internal scheduling conflicts, the Board meeting got pushed back by a couple of weeks.

Despite the delay, an increasing number of key stakeholders at Riot have expressed strong support for the Play partnership in the last week. We recently heard that Riot's President of Publishing and Head of International are supportive and also just heard over the weekend that Brandon Beck (co-founder of Riot) is excited about the partnership. The narrative around Play being able to help with Riot's New User Growth, International Expansion, and Long Term Engagement objectives have resonated strongly with the Riot team throughout this process and they have expressed interest in being able to partner closely with us to unlock the full lifecycle partnership potential of Play.

While we wait for the formal approval from Riot's exec team, both Riot and Play are planning on continuously engaging on a few work threads ranging from performance marketing, tech consulting, and growth consulting discussions and we will start planning on setting up discussions between marketing (& merch) teams from both Riot and Play to get aligned on the go-to-market plans for the 2 new mobile games which are expected to get announced during LoL's 10yr anniversary event in Sept.

Will keep everyone updated as we learn more about Riot's decision. Please let me know if you have any questions.

Best,
Lawrence

On Sun, Mar 3, 2019 at 10:46 PM Lawrence Koh <lawrencekoh@google.com> wrote:
[Privileged & Confidential]

Hi everyone,

I wanted to give a quick update and heads up about next steps for Riot as I expect key decisions from Riot being made later this month about our potential partnership. Riot is currently working on scheduling their BoD meeting to decide on their publishing strategy for their new 2 mobile games and we believe it's going to happen either on the week of Mar 25th or the week of Apr 1st. Based on recent discussions, our expectation is that the outcome of Riot's BoD meeting will be a positive outcome for Play and Play will be their primary publishing partner vs. Riot moving forward with their own platform. We still have a lot of work to get done over the next month but we're on the right path.

Current Status:

- Riot's 2 new games will be jointly announced on Sept 2019 as part of a larger Riot event
 - Project Bacon (TCG): Riot's Hearthstone competitor will be a cross platform offering right from the beginning. They are currently planning on starting pre-reg shortly after announce and looking to officially launch in late Q4 2019.
 - Project Lighting Rush (MOBA): this is LoL on mobile and will initially be mobile only with possible cross platform play with their main LoL product at a future date. Pre-reg for this will also start shortly after announce and game will officially launch in Q1 2020

- Our strategy of jointly working with Riot on the business case has been working out well as it has already given us a deeper level of access to the team and insights about their strategy and priorities with their 2 new games. The 3 key themes of the business case that we were able to get aligned on are:

[REDACTED]

[REDACTED]

[REDACTED]

- Andreas has been doing a great job of running point throughout the engagement and facilitating key working sessions with DevTech, Performance Marketing, and eSports. In the case of DevTech, Riot's dev team has already been seeing immediate value as our team has been able to provide valuable insights/solutions
- Riot has shared with us that their studio dev and marketing teams have already expressed their interest in continuously partnering with us. With the broader team being supportive of partnering, Riot believes if we can demonstrate that we're committed to making this the "largest Android gaming launch", it will be an easy discussion at the BoD meeting. Basically, Riot will like to know how much Google is willing to invest in this launch.
- Just a couple of days ago, we received Riot's planned first 12mo marketing budgets to support the 2 new games. This was shared so that we can get a better gauge of the level of investment that they are committing for their new games. [REDACTED]

[REDACTED]. We have additional regional details and have started discussions with our strategy team (Marchak/Karan/Samer) to review and explore a proposal.

Next Steps:

- We're going to work with the strategy team this week to explore the service packs that we budgeted for supporting Riot as part of Project Hug. We're going to aim for having an initial proposal ready by end of this week that we can use to initiate discussions with Riot and show how much Google is investing in the new games. As part of this initial proposal, it will include [REDACTED]

[REDACTED] Per Riot's request, Riot asked that we roll-up the [REDACTED] with our proposal so that the Riot team can see one holistic Google offering.

- As we work on the initial proposal, I'll also like to give the heads up that we will likely need to parallel path the budget approval for supporting Riot vs. the broader Project Hug budget ask timeline given the time sensitivity for the Riot project. We will make sure all parties continue to stay updated throughout this process. Please let me know if you have any questions. Will send over another update once we have our initial proposal ready later this week.

Best,
Lawrence

--

Lawrence Koh
Google Play Games
lawrencekoh@google.com
cell: 650-906-1283

--

Lawrence Koh
Google Play Games
lawrencekoh@google.com
cell: [650-906-1283](tel:650-906-1283)

--

Lawrence Koh
Google Play Games
lawrencekoh@google.com
cell: [650-906-1283](tel:650-906-1283)

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Lawrence Koh
Google Play Games
lawrencekoh@google.com
cell: [650-906-1283](tel:650-906-1283)

Exhibit D5

Public Redacted Version

EXHIBIT 5

HIGHLY CONFIDENTIAL

Page 1

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

IN RE GOOGLE PLAY STORE Case No.
ANTITRUST LITIGATION 3:21-md-02981-JD

THIS DOCUMENT RELATES TO:

Epic Games Inc. v. Google LLC, et al.,
Case No: 3:20-cv-05671-JD

In re Google Play Consumer
Antitrust Litigation,
Case No: 3:20-cv-05761-JD

In re Google Play Developer
Litigation,
Case No: 3:20-cv-05792-JD

State of Utah, et al., v.
Google LLC, et al.,
Case No: 3:21-cv-05227-JD

HIGHLY CONFIDENTIAL UNDER THE PROTECTIVE ORDER
VIRTUAL VIDEOCONFERENCE VIDEO-RECORDED
DEPOSITION OF LAWRENCE KOH

Thursday, December 9, 2021
Remotely Testifying from San Francisco, California

Reported By:

Hanna Kim, CLR, CSR No. 13083

Job No. 4969626

HIGHLY CONFIDENTIAL

Page 17

1 LAWRENCE KOH,
2 having been administered an oath over
3 videoconference, was examined
4 and testified as follows:

6 EXAMINATION

7 BY MS. MOSKOWITZ:

8 Q. Good morning, Mr. Koh. As you heard, my
9 name is Lauren Moskowitz, and I represent Epic
10 Games, and I'll be starting the questioning this
11 morning.

12 Thank you for being here.

13 Can you just please state your full name
14 again for the record.

15 A. My name is Lawrence Koh.

16 Q. And what is your address?

17 A. I currently reside -- do you want the full
18 address?

19 Q. You can tell me the -- the city and state.

20 A. City, state, okay. Yeah, I currently
21 reside in Lafayette, California.

22 Q. And where are you located at the moment?

23 A. I'm in downtown San Francisco, California.

24 Q. You are at your counsel's offices?

25 A. That is correct.

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Page 269

1 that again. I think it's Lei Zhang, as you
2 already corrected me earlier. Apologies.

3 The ans- -- the question Number 3 is,
4 [REDACTED] sounds fuzzy: is the
5 approximate [REDACTED] the right market price for
6 such content" [as read], et cetera.

7 Do you see that?

8 A. Yes, I do see it.

9 Q. And this is a continuation of the same
10 topic that we were just discussing in the context
11 of the prior exhibit?

12 MR. BRADSHAW: Object to the form.

13 THE WITNESS: Yes, that is correct.

14 BY MS. MOSKOWITZ:

15 Q. And "LK" here is your response?

16 A. Yes, that is correct.

17 Q. And you report here that you had discussed
18 this issue extensively with Ryan Wyatt; is that
19 right?

20 A. That is correct.

21 Q. And you report that you and Mr. Wyatt
22 "both agree that the [REDACTED] is
23 extremely aggressive and this will open up other
24 issues for the ecosystem (i.e., we potentially
25 create a valuation bubble for the games streaming

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Page 270

1 content industry.)" [As read]

2 Do you see that?

3 A. Yes, I do see that.

4 Q. And in terms of what ultimately was
5 reached in terms of the [REDACTED] of
6 the deal, I think we discussed earlier that your
7 understanding is that the final deal was
8 [REDACTED] is that correct?

9 A. That is correct.

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

17 Q. And do you recall who was the primary
18 point of contact vis-à-vis the [REDACTED] aspect of
19 the deal?

20 A. I believe it was Ryan Wyatt.

21 Q. Okay. All right.

22 I'm going to mark the next document, which
23 should appear momentarily as Exhibit 150.

24 (Koh Deposition Exhibit 150 was marked.)

25 BY MS. MOSKOWITZ:

HIGHLY CONFIDENTIAL

Page 271

1 Q. That is in there, and you should have it
2 accessible. For the record, PX 150 is Google Play
3 007280918 through '0920.

4 Please let me know when you have it.

5 A. I have it opened right now.

6 Q. This is an e-mail at the top between you
7 and Mike Marchak on December 12, 2019, discussing
8 earlier e-mails in the chain?

9 A. Yes, that is correct.

10 Q. And this is an e-mail chain in what -- in
11 which you participated in the ordinary course of
12 your job at Google?

13 A. Yes.

[REDACTED]

HIGHLY CONFIDENTIAL

Page 272

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

10 BY MS. MOSKOWITZ:

11 Q. Does that refresh your recollection that
12 Google had taken a run at trying to mitigate some
13 of [REDACTED]

14 MR. BRADSHAW: Object to the form.

15 THE WITNESS: I recall this conversation,
16 yes, around want- -- if -- if we were going to lean
17 into [REDACTED] we all -- in
18 exchange we wanted them to make [REDACTED]

19 [REDACTED]

20 BY MS. MOSKOWITZ:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

HIGHLY CONFIDENTIAL

Page 273

1 that page ending '0919?

2 A. Yes, I'm there.

3 Q. The second bullet is a reference to [REDACTED]
4 continuing to insist that there be a [REDACTED]
5 [REDACTED]
6 [REDACTED].

7 Do you see that?

8 A. Yes, I see it.

9 Q. And there's a discussion of potentially
10 removing "[REDACTED]"
11 That's the second bullet from the end.

12 Do you see that?

13 A. Yes, I see it.

14 Q. He says -- well, sorry, Ms. Beatty reports
15 that "If this deal falls through, Mr. Zerza claims
16 that they will launch their own mobile
17 distribution platform [REDACTED]
18 [REDACTED]
19 [REDACTED]
20 [REDACTED] [As

21 read]

22 Do you see that?

23 A. Yes, I do see it.

24 Q. So basically [REDACTED] was saying that if Google
25 backed out of [REDACTED], they may partner

[REDACTED]

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Page 284

13 A. Yes, that is correct.

14 Q. And the [REDACTED] is the --
15 whatever the signed version is of the exhibit we
16 looked at a moment ago?

17 MR. BRADSHAW: Object to the form.

18 THE WITNESS: I do not recall if there was
19 a [REDACTED] but I do recall
20 the -- all these being linked together.

21 BY MS. MOSKOWITZ:

22 Q. All right. All right.

23 Google also signed a Project Hug agreement
24 with Riot in 2020; is that right?

25 A. Yes, that is correct.

HIGHLY CONFIDENTIAL

Page 285

1 Q. And you were personally involved in the
2 negotiation of that deal?

3 A. Yes, I was involved.

4 Q. And as we discussed earlier, Riot was, in
5 fact, planning and told you it was planning to
6 launch its own Android app store?

7 MR. BRADSHAW: Object to the form.

8 THE WITNESS: Yes, they did tell us that
9 when we initially engaged with them.

10 BY MS. MOSKOWITZ:

11 Q. And when were you initially engaging with
12 them?

13 A. I -- I -- I -- I personally got -- got
14 involved during my first month at Google.

15 Q. So early 2019?

16 A. Yes, that is correct.

17 Q. All right.

18 The next document will be loaded
19 momentarily as Exhibit 154.

20 (Koh Deposition Exhibit 154 was marked.)

21 BY MS. MOSKOWITZ:

22 Q. Just give it a moment.

23 All right. It should be in now. Exhibit
24 PX 154 is Google Play 007035840 [as read] through
25 '5843.

HIGHLY CONFIDENTIAL

Page 286

1 Let me know when you have that?

2 A. Yes, I have it opened.

3 Q. This is an e-mail chain in which you
4 participated on February 13th, 2020, and earlier?

5 A. Yes, that is correct.

6 Q. And you participated in this e-mail in the
7 course -- ordinary course of your business at
8 Google?

9 A. Yes.

10 Q. There's -- the top e-mail from February is
11 forwarding and discussing a March 2019 e-mail; is
12 that right?

13 A. Yes, that is correct.

14 Q. And you're summarizing here in the second
15 paragraph that "Riot was on the verge of becoming
16 the next major game company to follow Epic in
17 moving forward with an off-Play Android
18 distribution strategy."

19 Do you see that?

20 A. Yes, I see that.

21 Q. And you said that you offered a Hug-like
22 deal to convince Riot to change that strategy;
23 right?

24 A. Yes, that is correct.

25 Q. And you also report that, at the time, you

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Page 287

1 didn't ask them for any contractual commitments of
2 ship -- sim-ship or any feature parity because you
3 were focused on getting Riot to shift away from
4 launching an off-Play Android distribution
5 platform; right?

6 MR. BRADSHAW: Object to the form.

7 THE WITNESS: Yes. We felt that Riot
8 didn't have a full understanding of all the value
9 and benefits that Google Play provides, so we
10 wanted to educate them on our value and benefits.

11 BY MS. MOSKOWITZ:

12 Q. Well, what this says is that you didn't
13 try to get any commitments from them that you
14 ordinarily would seek from a Hug developer as part
15 of a deal because your main focus was making sure
16 that they did not go forward and launch their
17 off-play Android distribution platform; right?

18 A. Yes, we felt that it was premature to talk
19 about a contractual commitment when we recognized
20 that Riot didn't have even just a general
21 understanding of all the value and benefits that
22 Google Play can provide as they were making that
23 decision to launch outside of Google Play.

24 Q. So the priority was to stop them from
25 doing that, and then you could talk further about

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Page 424

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CERTIFICATE OF REPORTER

I, Hanna Kim, a Certified Shorthand Reporter, do hereby certify:

That prior to being examined, the witness in the foregoing proceedings was by me duly sworn to testify to the truth, the whole truth, and nothing but the truth;

That said proceedings were taken before me at the time and place therein set forth and were taken down by me in shorthand and thereafter transcribed into typewriting under my direction and supervision;

I further certify that I am neither counsel for, nor related to, any party to said proceedings, not in anywise interested in the outcome thereof.

Further, that if the foregoing pertains to the original transcript of a deposition in a federal case, before completion of the proceedings, review of the transcript [] was [] was not requested.

In witness whereof, I have hereunto subscribed my name.

Dated: 10th day



Hanna Kim, CLR, CSR No. 13083

Exhibit D6

Public Redacted Version

EXHIBIT 6

Games Velocity Program
V1 Business Impact Assessment. V2 Introduction
December 2020

1

ATTORNEY CLIENT PRIVILEGED // REFLECTS LEGAL
ADVICE

Contents

- Games Velocity Program (GVP) Refresher
- GVP 1.0 Impact Assessment
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- GVP 1.0 x-Google Financial Assessment
- GVP 2.0 introduction

2

ATTORNEY CLIENT PRIVILEGED // REFLECTS LEGAL
ADVICE

2: x-Google value?



Games Velocity Program
Refresher

[Refresher] GVP 1.0 Context: In 2019, Google Play's growth and business model faced risk due to increasing competitive intensity & the emerging app store "tax" meme

Competitors Aggressively Pursuing Gaming



"App Store Tax" Meme Emerging

Apple and Google Face Growing Revolt Over App Store 'Tax'

Opinion: Google's 30% cut of Play Store app sales is nothing short of highway robbery

Risk: Top Developer Churn from Play

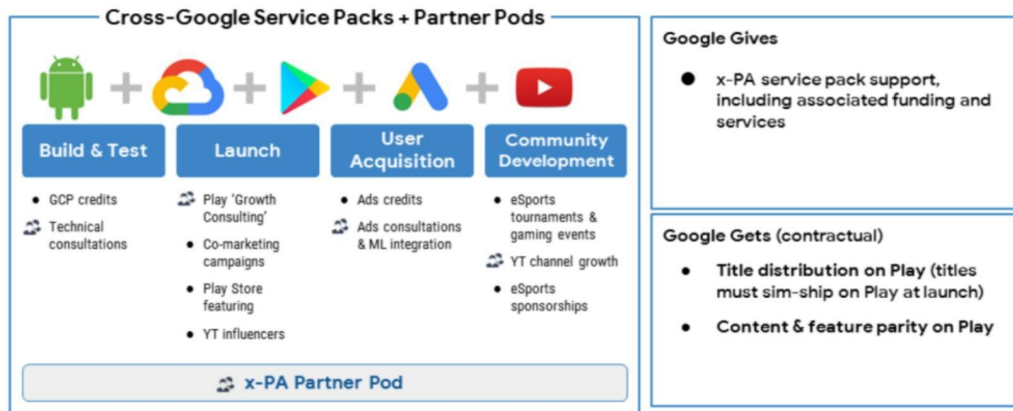
- Play margin loss: \$840M likely margin exposure in 2022 (cumulative ~\$2 Bn+ in 2019-2022)

Opportunity: Deepen relationships with top developers and grow cross-Google product adoption

4

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[Refresher] GVP 1.0 Proposal: We developed 'Games Velocity Program', a commercial program to unify & boost Google's value proposition to target developers



5

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[Refresher] GVP 1.0 Target Developers: GVP targeted 21 major game developers



[Full Partner List](#)

Drive disproportionate value to Google
(e.g. ~20% of total Play consumer spend)

Beacons of the ecosystem

Expressed discontent over lack of unified support from Google

May forgo Play (& Android)

- Upcoming major new title launch
- Difficulty delivering hi-fidelity games on Android
- Capabilities to 'go-it-alone' on Android

6

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[Refresher] GVP 1.0 Goals, Non-Goals & Success Metrics**Desired Developer Objectives****Goal 1: Prioritize Play Users****Ensure Play users are not disadvantaged**

- Launch on Play on "day 1" of mobile launch
- Co-invest in promoting Play title
- Improve game quality and device reach
- Maintain game parity across platforms

Goal 2: Boost x-PA Product Adoption**Unlock xPA value for partners & Google**

- **GCP:** win-rate acceleration; ARR increase, marquee titles on GCP
- **YouTube:** mobile gaming watchtime uplift, Mobile gaming upload + creator uplift
- **Ads:** UAC growth acceleration; best practice adoption

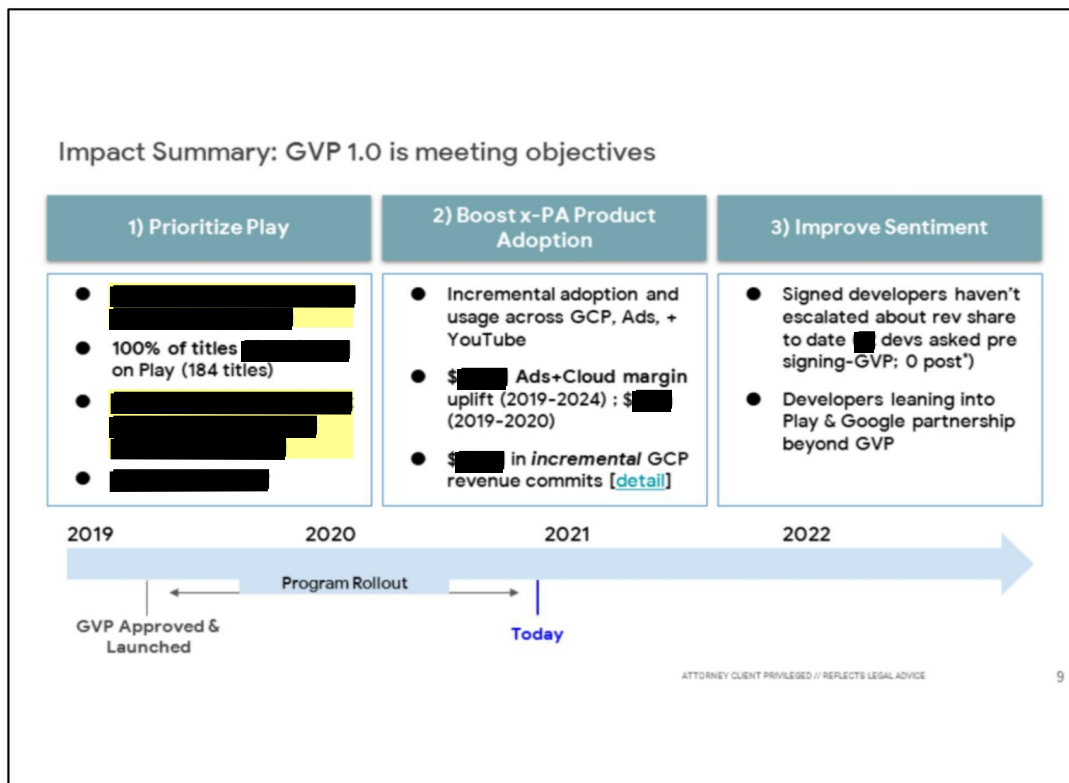
Goal 3: Improve Developer Sentiment

Non Goals: Play exclusivity, drive additional xPA integrations (eg: [REDACTED]), xPA spend commitments

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GVP 1.0 Impact Assessment






product commits? Better than expected?
Link to source

GOAL 1: Prioritize Play Users

HOLDING OUT

GOAL 2: Boost xPA Product Adoption

Developers are realizing value across PAs & beating BC estimates

BC Success Metrics			Other Metrics	
	@ BC	Actual		
	ARR acceleration	████% (by 2024)	████% (by 2024)	3-4 Yr Incremental Spend Commits ██████
	Win-Rate acceleration	████%	████%	
	Marquee titles on GCP	N/A	█	
		@ BC	Actual	Share of Wallet █████% ROI █████%
	UAC yoy growth rate acceleration	████%	██████████%	
	SVA / Best Practice adoption	████	██████████	
		@ BC	Actual	
	Mobile game watchtime, as % of total gaming watchtime	████% (by 2022)	████% (2020)	
	Mobile game creator/upload uplift	N/A	██████████	

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Cloud Deals:

[illegible]

TOTAL: 1.0M. Incremental: 0.0M

Cloud KPI Definitions:

-ARR acceleration: Defined as average YoY growth between BC 5-year total: \$ [REDACTED]
HUG BC 5-year total: \$ [REDACTED] and HUG new projected 5-year total: \$ [REDACTED].

-Win-rate acceleration: Defined as conversion percentage increase from BC %. BC conversion was █% w/o HUG and █% with HUG █ = █%. Already signed 12 out of 18 developers so █% conversion. Estimating conservatively at █% through program duration. █ = █%.

-Marquee titles on GCP: Defined as number of marquee titles on GCP from signed developers. 9 titles include"

>> [REDACTED] migrating from [REDACTED]

>> ██████████ - Expected to 13x spending

>> [REDACTED] - new customer
>> [REDACTED] and new title
>> [REDACTED] - Expected to 40x spending



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GOAL 3: Improve Developer Sentiment

Beyond GVP - Quantitative assessment of partnership health* by xPA Finance teams



* xPA Finance assessment of developer investment with Google; not entirely attributable to GVP, but supported by GVP

14

GVP 1.0 xGoogle financial impact

15

Google-wide ROI shows positive contribution of [REDACTED]

		2019	2020	2021	2022	2019-2022
	Play Risk Mitigation	[REDACTED]				
Margin from Inc.	Ads					
Revenue	Cloud					
	Attributable Margin					
Cost to Serve	Ads					
GVP Credits	Cloud					
	Marketing					
	YT- esports + [REDACTED]					
	Forecasted					
	Total Cost to Serve					
	Margin Net of Cost					
	ROI					

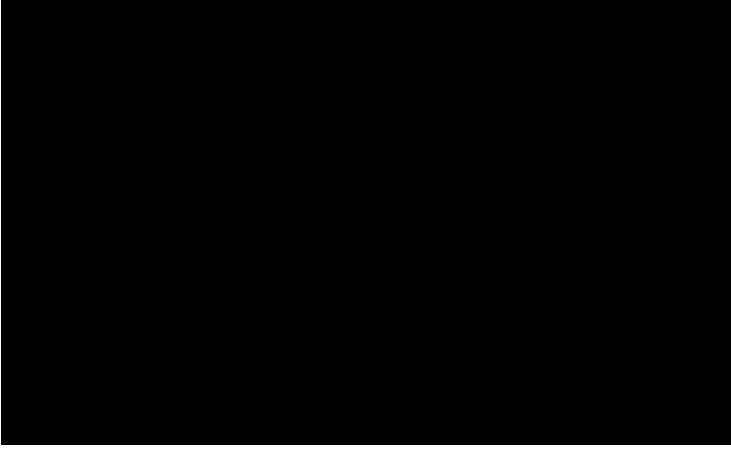
Call outs:

- Ads**
 - While Ads margin is -ve, incrementality from GVP surpasses BC expectations
- Cloud**
 - [REDACTED] incr. rev (from large commits) and high adoption make GCP credits margin +ve for GVP
- YouTube**
 - YT costs are front-end weighted, with [REDACTED] of [REDACTED] package hitting 2020

****Assumes GVP at 5% reinvestment continues beyond 2020**

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As a result, GVP has been effective at mitigating margin loss risk from off-Play distribution



Better than expected risk mitigation with GVP investments improving sentiment towards Play

Developers prioritized Play users while launching new titles

Developers maintained feature and content parity for titles across platforms

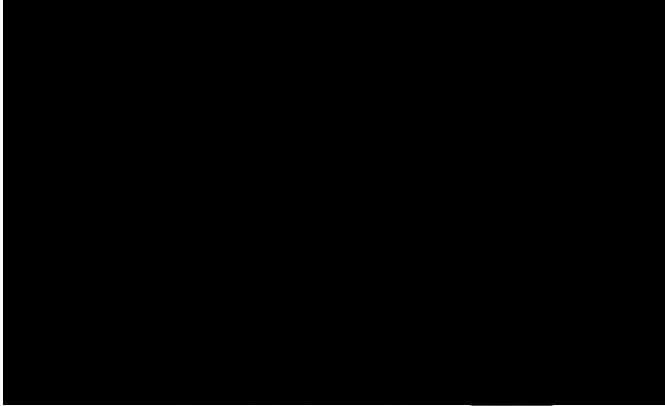
1) Benchmarked operating metrics through July 2020 against risk milestones for FY2022

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17

Mitigation driven by (1) signed developer spend under sim-ship contract, (2) other stores and (3) other devs (halo effect)
For more information on methodology of calculation, see [here](#)

GVP 1.0 is ROI positive even without [REDACTED] Play risk mitigation; outsized [REDACTED] investments diluted overall returns. 7/18 deals are positive, 3 more likely to be.



Program ROI positive even without [REDACTED] Play risk mitigation

Comarketing investments of [REDACTED] (over 2019-2024) expected to recoup [REDACTED] of invested value

[REDACTED] expected to sign incremental GCP commits [REDACTED] and turn ROI +ve

[REDACTED] esports investment with [REDACTED] adversely impacted [REDACTED] and program ROI

- 1 Ads has attributed GVP margin upside for the duration of the credits (2020 for most devs, 3 years for [REDACTED] of UAC margin uplift in 2019, and [REDACTED] thereafter
- 2 GCP has attributed GVP margin upside until 2024, due to commits secured via GVP, as well as long term nature of GCP partnerships
- 3 GCP upside does not yet include Play revenue deferrals to Cloud of [REDACTED] towards Cloud credits. Cloud PA would recognize this revenue upon credit utilization by developer
- 4 GVP will mitigate Play margin risk worth [REDACTED] by 2022

18

GVP 2.0 Introduction

19

GVP 2.0: Build on GVP 1.0 success, address gaps & focus on joint growth

Continue to address Play risk, including new payments risk

- Keep leveraging GVP to address **continuing top developer concerns**
- Evolve GVP goals beyond **simship** to also focus on **joint growth**, as risk evolves from off-Play distribution to payments

Continue to create net new xGoogle value

- Double down on GCP credits
- Address ROI gap in Ads offer
- Leverage investment in **Play Points, Promos**
- Drive joint growth by **aligning incentives with growth targets**
- Support **Android/Play platform growth** by including product integration requirements
- Bolster consults, **Play-YT engagement, features**

Continue to improve sentiment

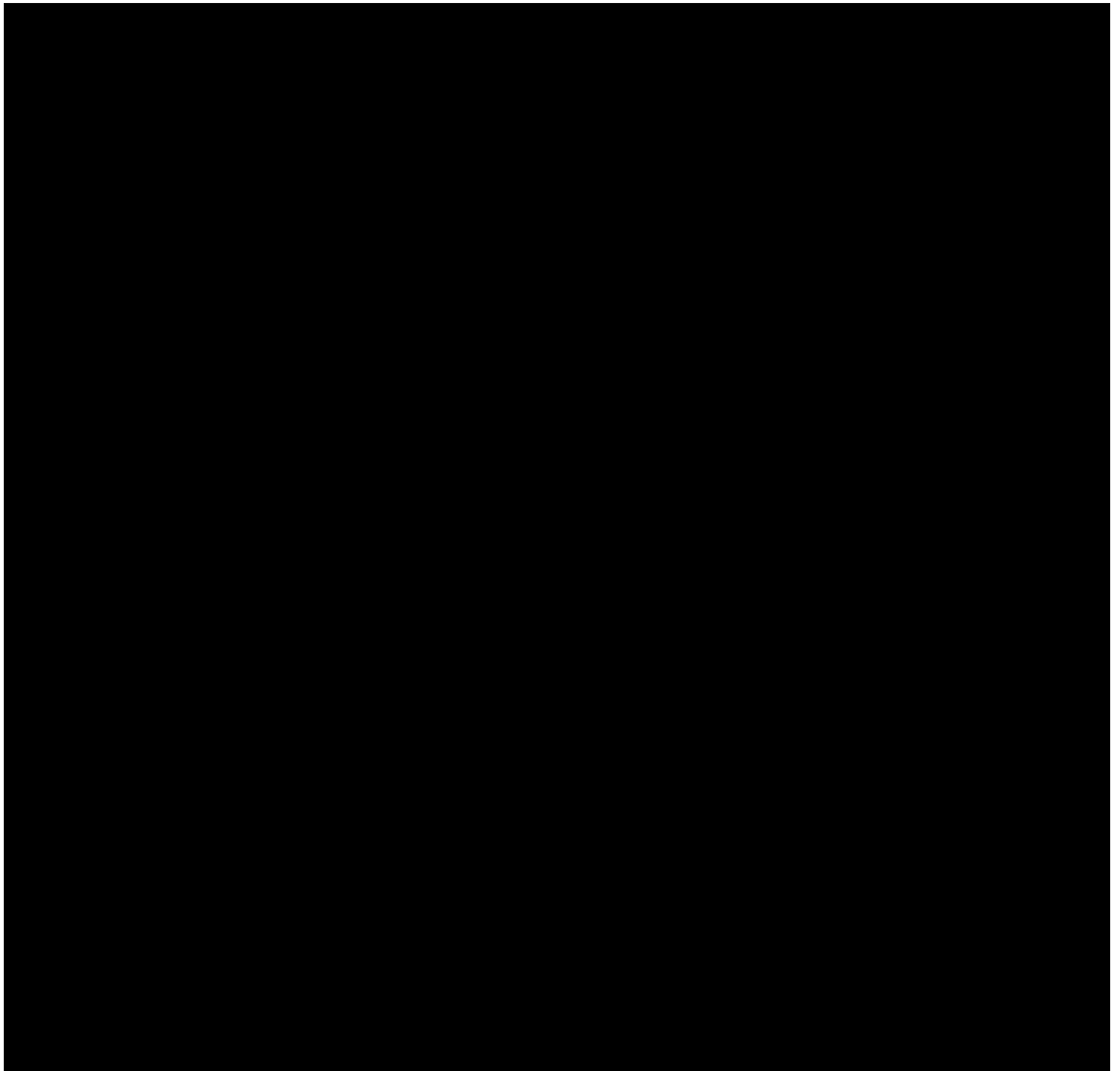
- Expand from 1-year to **multi-year deals** to deepen partnership
- **Grossly simplify operations**

Continue to address current & emerging risks while creating incremental xGoogle value; be prepared for public disclosure

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20

product commits? Better than expected?
Link to source



What we learnt

GVP2.0 framework: Refine GVP 1.0 service packs; simplify operations; bolster consults, YT-Play engagement/features

Service Pack	Developer Sentiment impact from GVP			ROI from Commercial Offers	Comments
	Commercial Offers	Consulting Offers*	Operational Delivery		
Build & Test					
Launch					
UA					
Community					
Build & Test: GCP credits, GCP consultations, DevRel Consultations		Launch: Play featuring, G. Consulting, Comarketing, YouTube influencers		User Acquisition: UAC credits, Ads SVAs	Community Dev.: YouTube Channel growth, esports sponsorships & events

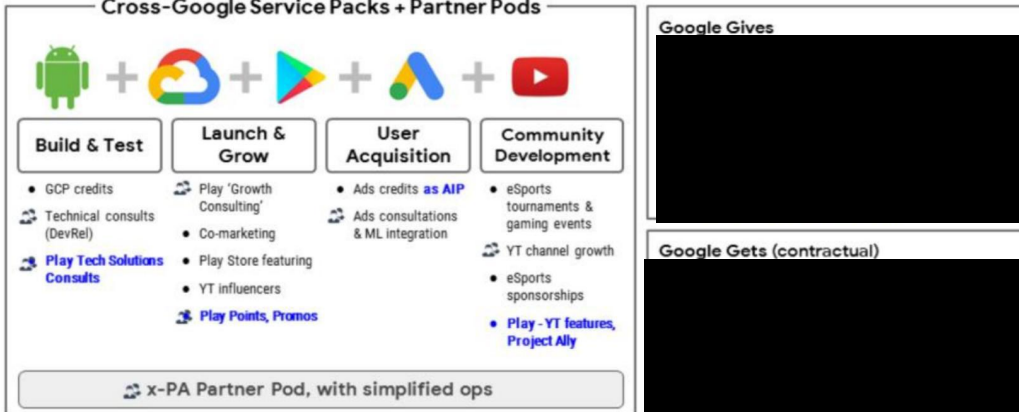
* Play featuring and PCO support has been included as part of Launch Consulting offers

DRAFT

DRAFT

GVP 2.0 Proposal: Builds on GVP 1.0 and extends term to three years to deepen partnership with devs that matter most to our users.

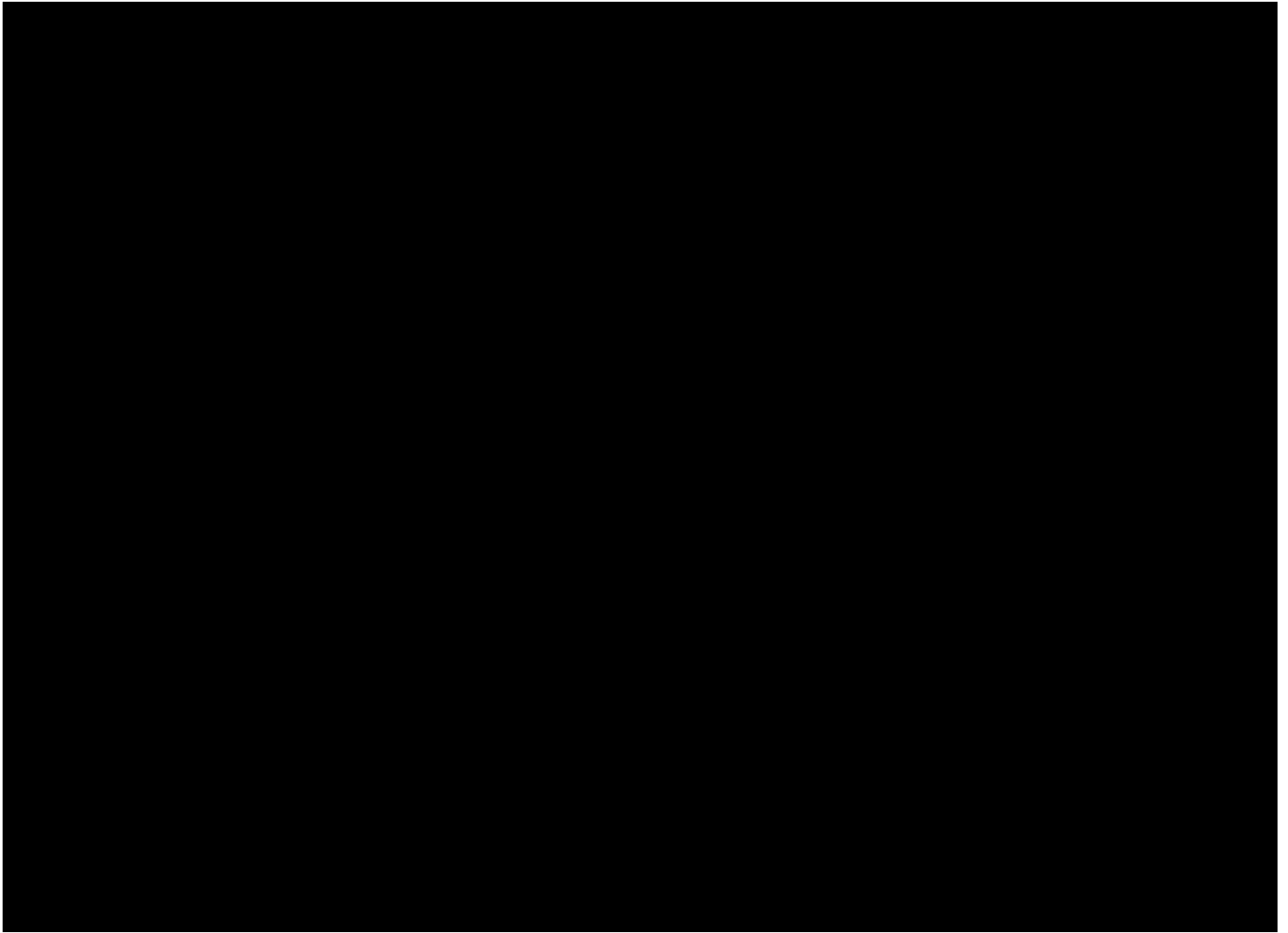
Cross-Google Service Packs + Partner Pods

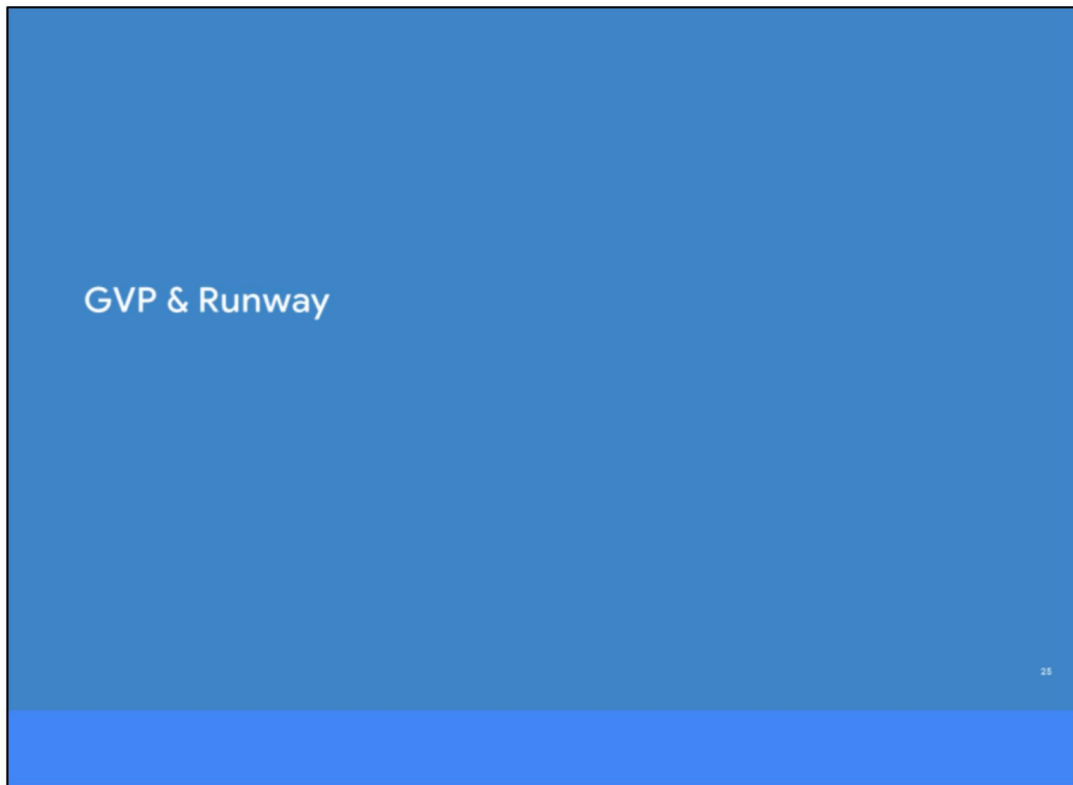


Blue items are new

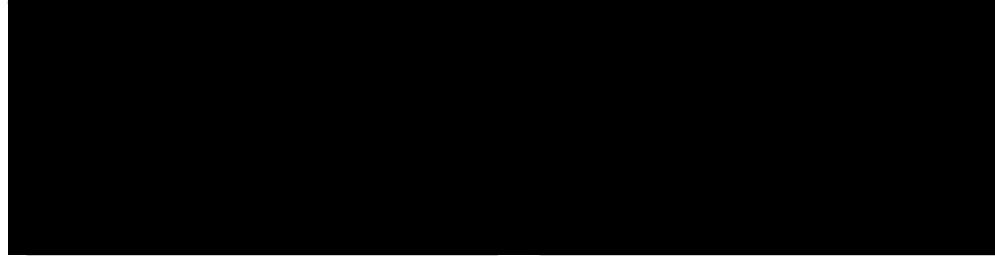
23

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GVP delivered +ve Google margin while addressing dev sentiment; if Runway addresses commercial concerns, could a limited but complimentary GVP drive xGoogle upside?



GVP offered at [REDACTED] & met the following 3 objectives:

Improve Sentiment: decrease rev share agitation

Prioritize Play: devs launch on Play along with other platforms

Increase xPA Adoption: xPA incentives to grow Google footprint; [REDACTED] incremental Google margin against investment of [REDACTED]

Runway may address 2/3 objectives:

Improve Sentiment: Addressed via reduced rev share

[REDACTED] Runway may help address off Play monetization; however, without GVP we lose our ability to guarantee simship

Increase xPA Adoption: Without GVP, we lose our ability to create any "net new" Google upside and reduce Program cost

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A limited GVP should anchor towards Google uplift; lead with tactics driving maximum ROI - double down on GCP, integrate Play Loyalty, ask for strategic product adoption

GVP tactic	Impact on ROI	Continue?	Comments
Ads	Neutral		Program pivoting to AIP, however, expected to remain ROI neutral
Cloud	Positive		Conditional to new / incremental GCP commit
Play*	Expected Positive (NPU, Buyer Retention, Product adoption)		Offer Play investments linked to Play objectives, e.g., Loyalty, Strategic product adoption
YouTube	Presence Grants: Unknown esports rights: Negative		YouTube helpful in improving developer sentiment, but is largely ROI negative
Marketing	Custom campaigns: positive Others: negative		Unlink comarketing from GVP; continue supporting tentpole launches

* Play did not have a commercial tactic in GVP. We are evaluating adding commercial tactics as part of GVP 2.0

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Evolve GVP as a Play+Cloud incentive program for top game developers; eligibility criteria expand beyond Play metrics to also address Cloud opportunity

"New" GVP = Play + Cloud enterprise developer program


Google Gives

Google Gets

Eligibility criteria: expand GVP criteria beyond Play metrics to include qualifiers for GCP opportunity

* X to vary by developer based on what may drive best Google returns

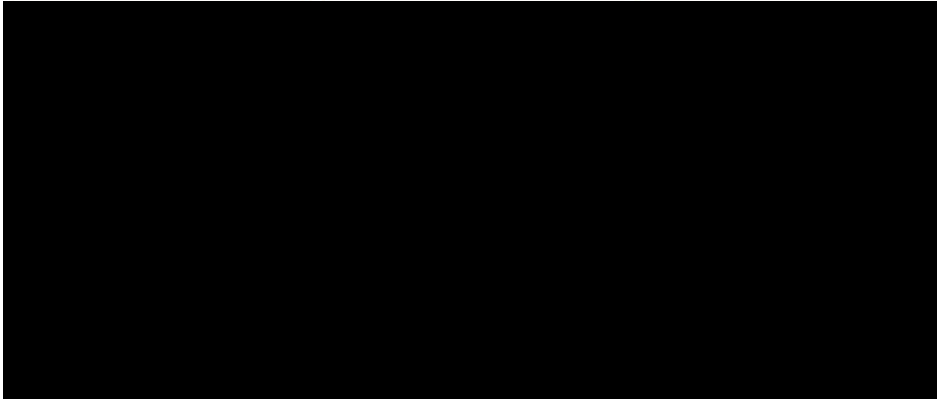
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<u>Question:</u> If GVP pivots to primarily driving Google margin upside, could it part-fund Runway in a world where they co-exist?			
	Runway	GVP	GVP (in conjunction w/Runway)
Program Description			
Eligibility			
Google Gives / Costs			
Google Gets			
Impact on Objectives			

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er

Question: What should our immediate focus for 02/11 BC be, given fluidity on Runway?
Proposal: address the most pressing developers, until our large dev strategy is defined

	Option 1	Option 2	Option 3 (R)
Pros			
Cons			

* Qualifies criteria for GVP 1.0

30

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Appendix

31

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ADVICE

GVP 2.0: Build on GVP 1.0 success, address gaps & focus on joint growth



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product commits? Better than expected?
Link to source

Comparing
programs

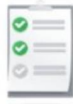
	GVP 1.0	GVP 2.0
Program Objective	Mitigate Play distribution risk	Incentivize joint growth
Eligibility criteria	PC/Console Devs Lifetime Revenue of IP [REDACTED] Play Devs: Lifetime Spend [REDACTED] OR Lifetime Spend [REDACTED] and growing [REDACTED] YoY	PC/Console Devs Lifetime revenue of IP [REDACTED] Play Devs Lifetime Spend = [REDACTED] growing [REDACTED] Lifetime Spend = [REDACTED] growing [REDACTED]
# of developers	[REDACTED]	
% of Play Spend covered	[REDACTED]	
Google Gives	Commercial: Ads credits: [REDACTED] of eligible UAC spend, capped GCP credits: [REDACTED] of Play Consumer Spend, uncapped Comarketing - fixed allocation YouTube Presence Grants - fixed allocation eSports rights / sponsorships - fixed allocation Consultative Ads consulting, GCP consulting, Play business consulting, DevRel consulting	Commercial: Ads credits: nn% of incremental UAC spend, capped (AIP Program) GCP credits: [REDACTED] of Play Spend, uncapped Comarketing - % of Play Spend, uncapped YouTube Presence Grants - % of Play spend, uncapped eSports rights / sponsorships - % of Play spend, uncapped Consultative Ads consulting , GCP consulting, Play business and tech consulting, DevRel consulting
Google Gets	[REDACTED]	
% investment	[REDACTED] of respective Play Consumer spend	[REDACTED] of respective Play Consumer spend
Term	[REDACTED]	
Play Margin investment	\$nnM over three years: \$nnM to extend 1 year incentives to three for select devs	\$nnM over three years, \$nnM in 2021
Google Upside	\$nnM over three years:	Estimated... 33

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We are ran an effort to examine new Play GVP capabilities against a few main criteria



Live or in-flight



Measurable
incrementality



...could go into
contract with
developers

...and we're pursuing three main focus areas for inclusion within GVP

Google Play Points

Exclusive spotlight campaigns for GVP partners (e.g. 10x Play Points promotion) to help drive incremental spend

Battlestar

Including language specific to the adoption of Battlestar can help align B* goals with GVP developers

NBU localization incentives (bounty model)

Devs can earn incentives if they create programmatic, localized investments in under-served frontier markets that speed up buyer growth

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Discussion

Summary

GVP 1.0 is working, has helped mitigate off-Play distribution risk and had deepened overall developer partnership with Google

Several major GVP gives expire in 2020 EOY (except for GCP) and developers are actively asking for extensions.

GVP 2.0 builds on the successes of 1.0, actively addresses gaps, and shifts goals from off-Play risk to joint growth. Extends term to three years to deepen partnerships.

Open questions

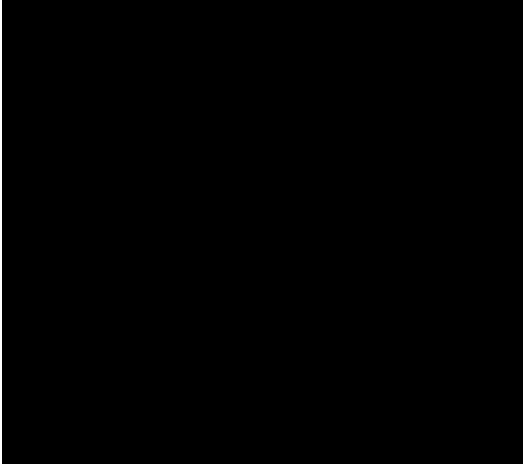
Project Runway - are there concerns about extending term to three years given Project Runway plans?

AVP - other PAs are getting wary of xPA deals - Cloud as AVP deals could have larger contra impact on them. Ads due to negative (albeit small) ROI. Is this still the right approach?

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35

Play GVP cost > Google cost by [REDACTED] mainly due to Play deferrals to GCP (not reflected in GCP upside)
GCP expects to recognize this revenue upon credit utilization by developer






Average Google value created by \$1 invested in each commercial GVP offer

Ads Credits	
GCP Credits	
Comarketing	
YouTube	TBD

37

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Understanding risks, there's win-win potential across partners

	 Carriers/OEMs	 Google	 Developers
Key Benefits	Brand story in high-interest vertical Offer value for users	Growth/defense of Android & Play brands Adoption of GMS services	Incremental brand marketing Offer value for users
Risks & challenges	Non-brand, attributable metrics likely low	Low ROI outlook for top funnel marketing programs	TAM trade-off for Android only programs
Key OKRs	Brand perception & PI User loyalty Device sales, plan activations	Play: brand affinity & engagement AND: brand metrics, PI & growth GMS: registrations & LTV	Brand awareness & affinity User engagement & revenue

38

Google

Reduce words.

But developer+ partnership story first, then follow up with what it results in (and why it's good for) for the user.

Lead with the rationale, then follow with WIP ideas.

Add more examples of types of ideas.


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Illustrative gaming bundle with [REDACTED] offers the best of Android 1P & 3P

Top Games Bundle Offer
T-Mobile exclusive program

\$[200] off
Android Premium
Phone or Plan Purchase

And get the following rewards:


Premium
Free: 3 month Trial


Google Play Points
Instant: Gold Status

Marketing & Promotion Commitments

Google

- [REDACTED] marketing investment in ATL & BTL
- Play Store featuring of promotion
- Owned marketing & comms
- Funding of all 1P & 3P content
- Funding of sales incentives & price promos

Carriers

- [REDACTED] marketing investment match
- Premium in-store & online retail placements
- Retail training & sales incentives
- Owned marketing & comms

Developers

- In-game promotion
- Owned marketing & comms
- Game IP & content, funded by Google

39

Google

Break up by parties (dev, carrier, google), underneath is what they contribute

What they get out of it

Focus Slide 7 on the user centric view

Slide 7 on the developer centric view



Two ideas here -- include a bunch of ideas so we aren't pigeon-holed into the presented ideas if Nick / Sameer doesn't like it.

Set expectations with Nick / Sameer

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Other potential bundles targeting key consumers (all TBD)

\$[200] off
Android Premium
Phone or Plan Purchase





Social gamers


Game or watch content with your friends with new Duo video chat & co-watching features



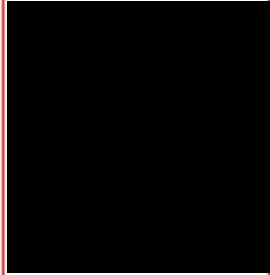
Free Duo with video-chat & YT co-watching integration



YouTube Premium
Free! 3 month Trial




Interactive sharers



Early adopter AAA gamers

Play AAA games on-the-go, download-free with Stadia





Stadia Pro
Free! 3 month Trial

YouTube Premium
Free! 3 month Trial


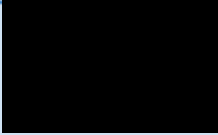
Free! 3P content offers (TBD)

40



Explore the world of , interact with characters in augmented reality and capture your very own scenes to share with friends

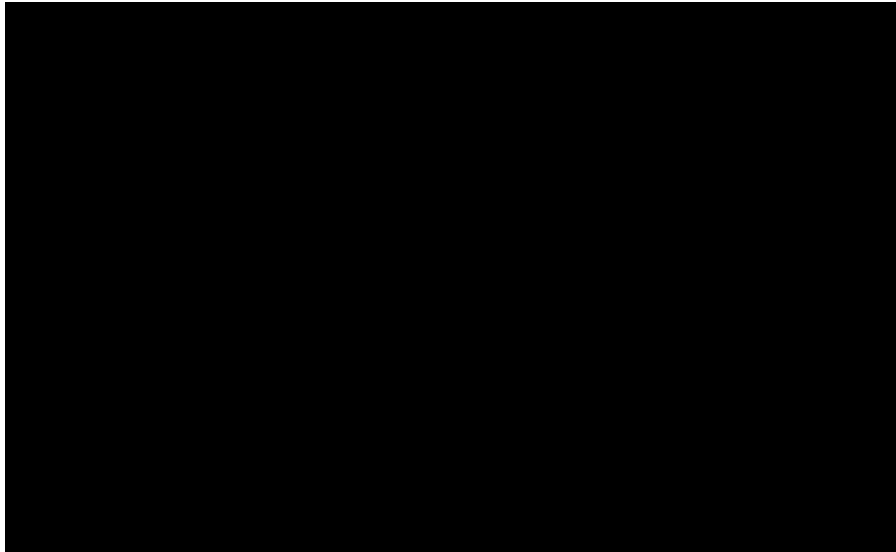
GCP Impact Analysis - Summary

	Projected	Actual
 ■ year Spend commits <i>ARR acceleration</i> <i>Marquee titles on GCP</i> <small>BC Metrics</small>	N/A ■ XX	
Key Highlights	Key Learnings	
<ul style="list-style-type: none"> ● ■ receiving GCP credits via Hug ● Hug helped sign deals with ■ of the top ■ developers collectively expected to spend ■ on IT in 2021 ● Helping devs expand x-platform GCP footprint in Gaming ● Deals expected to deliver higher longer term upside to Google due to sticky nature of Cloud partnerships 	<ul style="list-style-type: none"> ● Allowing commits & Hug credits to coexist was crucial to close large deals ● Need to spend time thinking about nuances of Cloud ecosystem, e.g. resellers, local taxes ● Highly operational & resource intensive; need to invest in standardizing approvals and operations 	

41

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GCP spend commit deals, including incremental attributable to Hug



42

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ADVICE

The Gaming vertical has significant upside for GCP




Insights

- [REDACTED] developers expected to deliver [REDACTED] in IT spend in 2021. HUG helped GCP negotiate or sign a deal with [REDACTED] developers
- **First-mover advantage** is critical in the gaming, once developer migrates a game or large workload, they are likely to remain entrenched on platform
- Gaming developers have **significant upside**. Usually **under-commit to GCP** (up to [REDACTED]) due to:
 - Uncertainty about game launch timelines
 - Existing contracts with AWS and unfamiliarity with GCP
- Offering GCP commits allows **developers to feel more comfortable migrating larger workloads** since incentives greatly exceed other Cloud offers
- A GCP commit offers **guaranteed return on HUG credits and ensures 1 or 2 large workloads will reside on GCP** [REDACTED] uplift from standard GCP discounts, [REDACTED] uplift from HUG w/o commit) 43

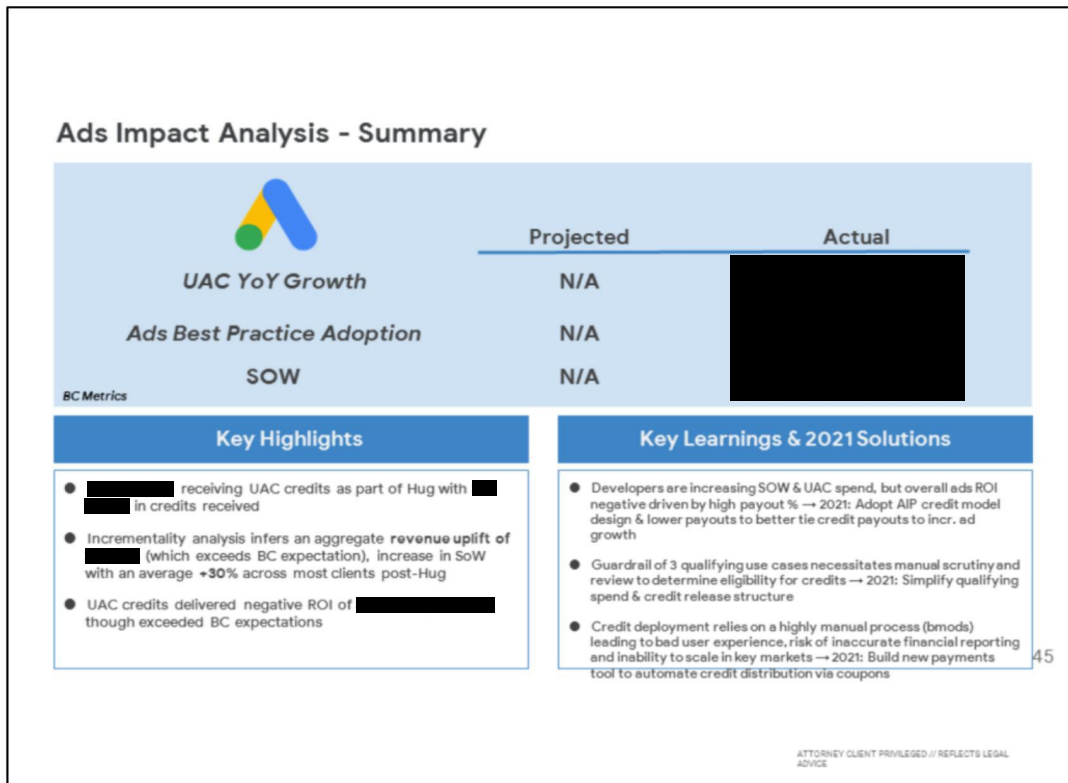
Google Play

YouTube Impact Analysis - Summary

	Projected	Actual
		
<i>Mobile Game Watchtime</i>	[REDACTED]	[REDACTED]
<i>Creator / Upload Uplift</i>	XX	[REDACTED]
<i>Sentiment</i>	XX	[REDACTED]
<small>BC Metrics</small>		
Key Highlights	Key Learnings	
<ul style="list-style-type: none"> ● Presence grants enabled positive engagement with developers on content strategy & planning ● Most developers increased their YouTube content uploads / creator engagements / YouTube presence ● Funds being used across a variety of initiatives - live events, creator academies, community days 	<ul style="list-style-type: none"> ● Longer than expected lead times, however useful foundational work and testing done with most devs ● Title popularity impacts effectiveness of funds; Riot and [REDACTED] saw decline in content creation / audience due to title popularity / age 	

44

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BC assumption of uplift was equivalent to [REDACTED] of released credits [REDACTED] actual)
 - actual uplift range of [REDACTED] based on analysis performed
 Note: Incrementality results obtained via 2 separate goliath analyses, and a CausalImpact analysis

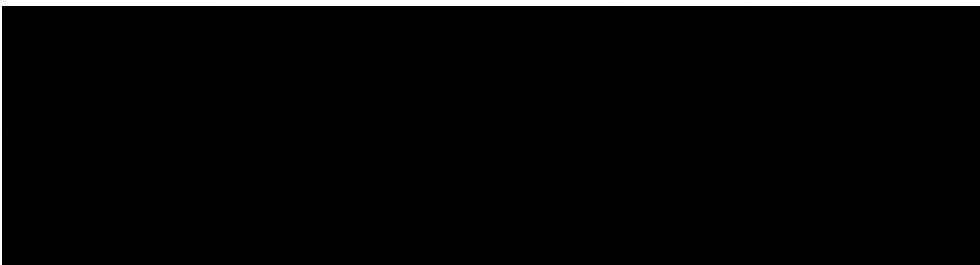
Automate credit distribution via build of new payments tool to shift from manual credit memos to automated coupons

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Ads Incrementality Analysis - Summary (Jun-20)

Financial Summary:

- **UAC spend:** Contract to date revenue post-Hug indicates [REDACTED] (mainly [REDACTED])
- **SOW:** We continue to see an [REDACTED] across most clients post-Hug
- **Hug Rev Uplift:** Incrementality Analysis indicates aggregate [REDACTED] which exceeds BC expectation ¹
- **Ads ROI:** However, we are still **ROI negative** as there isn't sufficient uplift to offset the magnitude of credits. It is worth noting that the Ads ROI has improved since the Mar-20 analysis with 3 additional months of data (see next slide)



¹ BC assumption of uplift was equivalent to 50% of released credits
² Calculated using the average cost to serve for King.com given they are ~75% of the total revenue
 Detail on Incrementality methods and assumptions [here](#)

46

Google

Note: Based on incrementality study, [REDACTED] is attributable to Hug, with the remaining [REDACTED] due to other factors.

Note: [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]

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Ads Incrementality Analysis - Changes from Mar-20

- The total inferred uplift attributable to Hug has increased from [REDACTED], based on the refreshed incrementality models with an additional 3 months of data (*all other variable held constant*)
- The additional uplift has improved the ROI, however, we are still ROI negative for the standalone Ads P&L

[REDACTED]

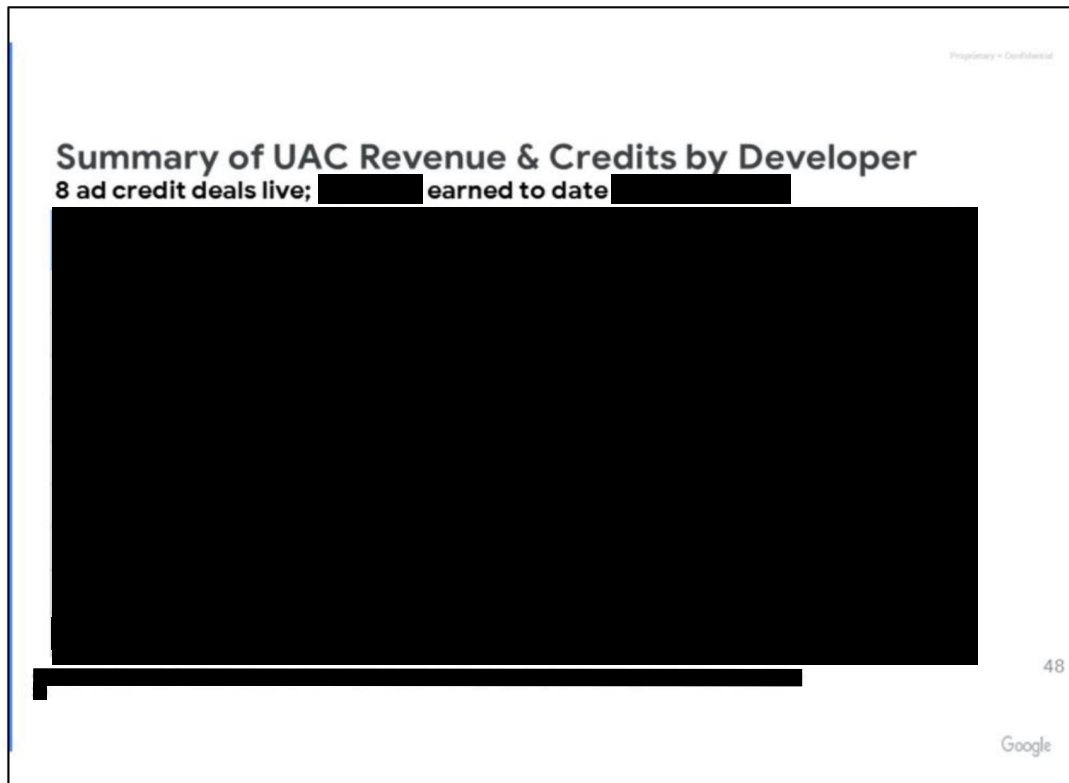
- Overall payout ratios need to be reduced if want Ads to be ROI neutral, or positive under this program
 - For reference, for ads-only AIP deals, the payout range is between 1-3% (ROI 4-9x)

[REDACTED]

47

Google

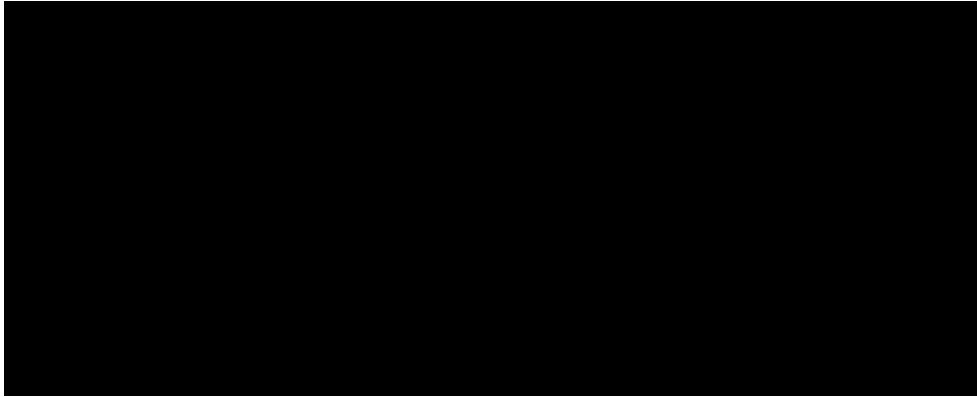
Avg credit earn rate through Jun-20 was [REDACTED] of total UAC spend (Hug was [REDACTED] on QS-only), so we still have a large gap from what we currently hold ads-only programs to



Time Period (mo) : Pre Hug = Post Hug: For example, a contract signed in Nov-19 [REDACTED] is active 8 months as of Jun-20. Therefore, pre-hug revenue is Mar-19 to Oct-19 (-8 months) and post-hug revenue is Nov-11 to Jun-20 (+8 months)

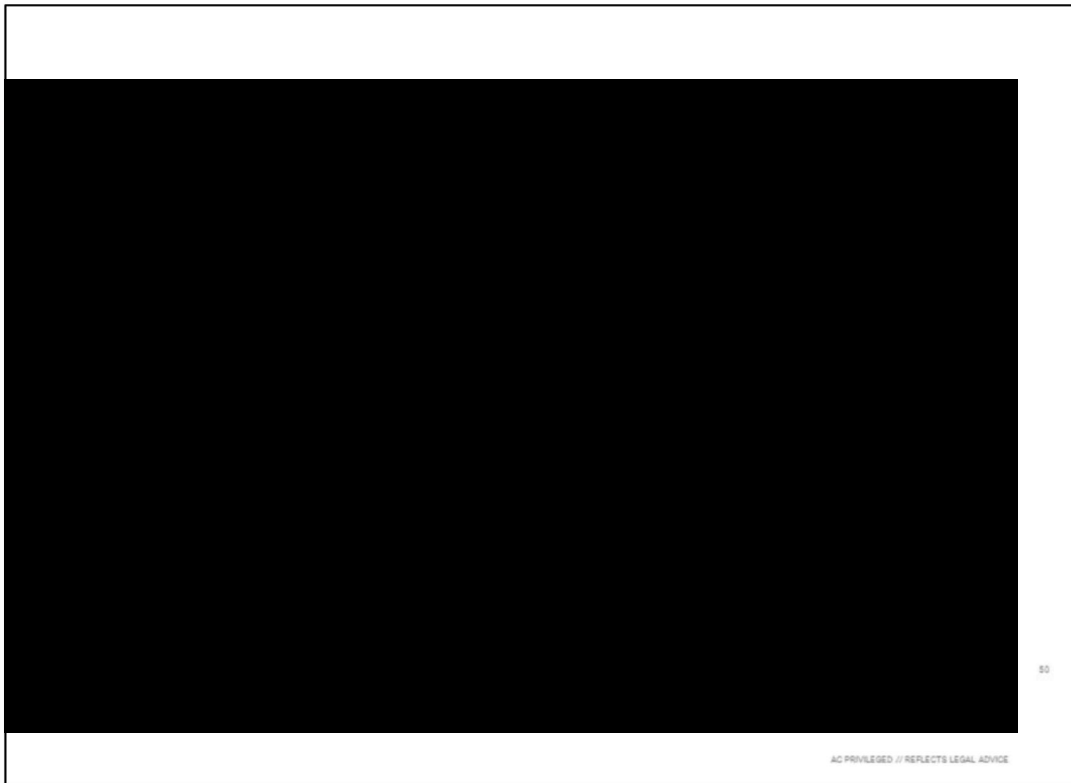
Note: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[Refresher] Target Developers: GVP targeted 21 major game developers



49

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GOAL 3: Improve Developer Sentiment**Post-GVP, conversations shifted from Play's rev share to value creation with Google; developers deepened partnerships with Play****Reduced Commercial Pressure**

(Developers no longer vocally agitating, or asking for rev share cuts)

Pre GVP**Post GVP****NO new inquiries on revenue share** from developers who signed GVP¹

Developers focused their growth efforts on Play

Riot launched on Play in recognition of the xGoogle value

**Improved Play Partnerships**

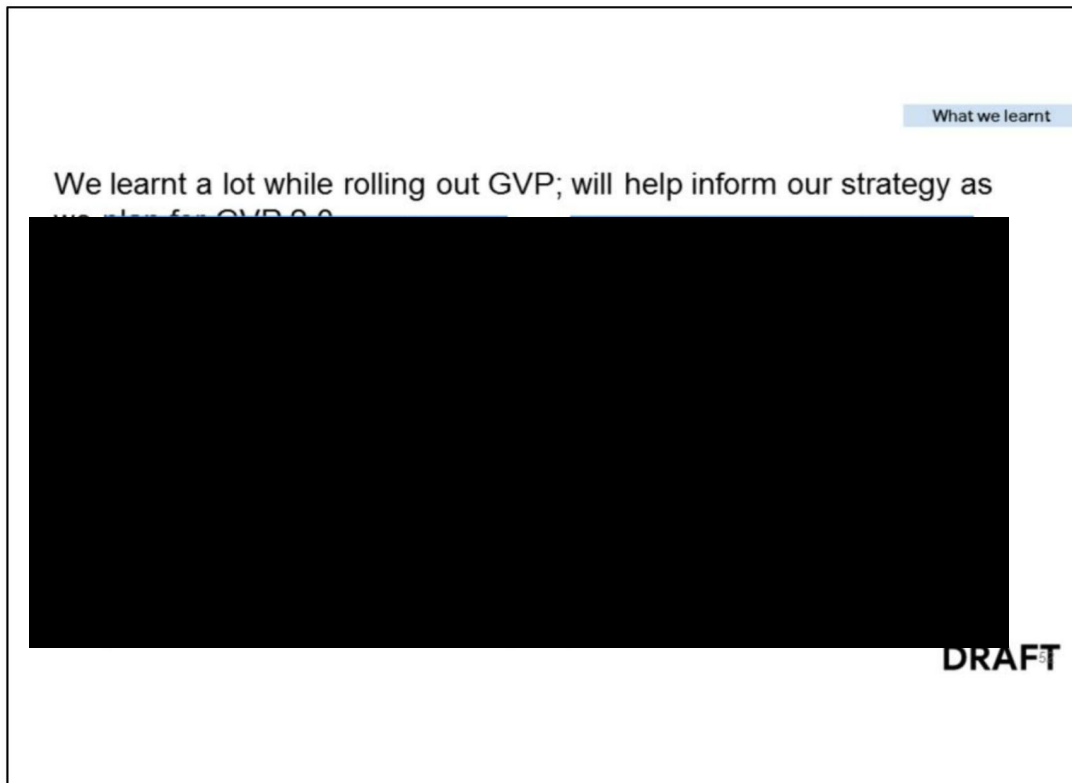
(Developers partnering deeply with Play on strategic initiatives)

Pre GVP**Post GVP**Developers **improved Play partnership** with increased participation in Play growth consulting, pilots etc

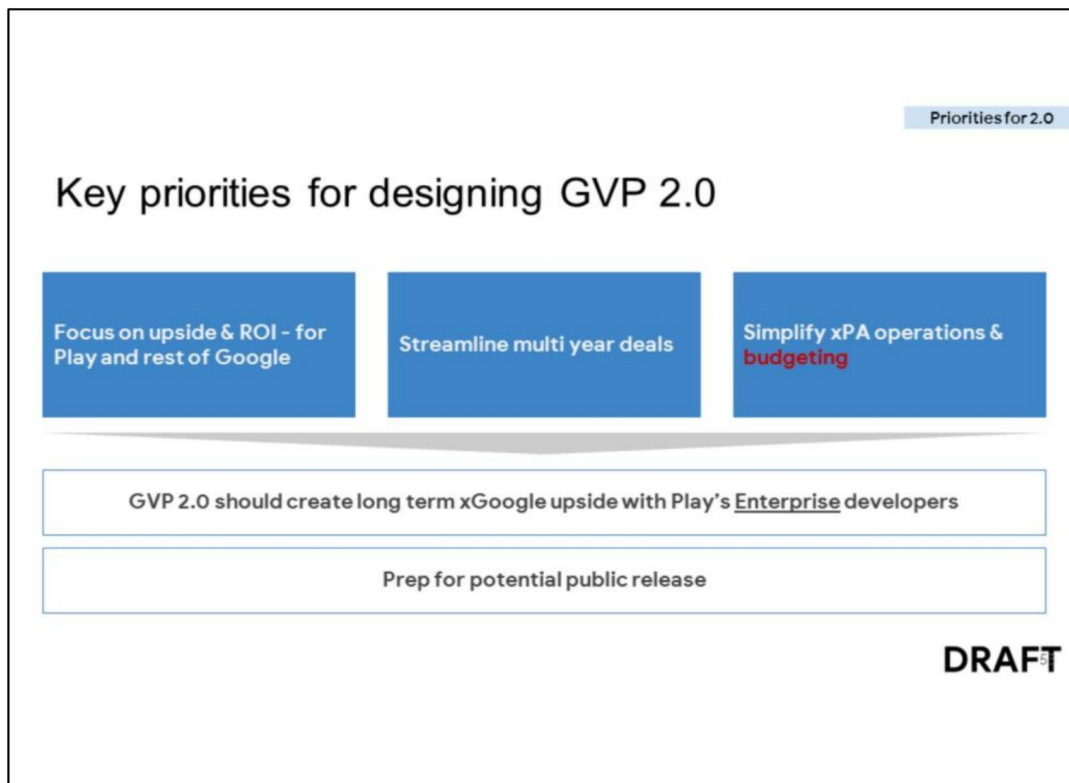
GVP deepened Play relationships with previously cautious developers like [REDACTED]

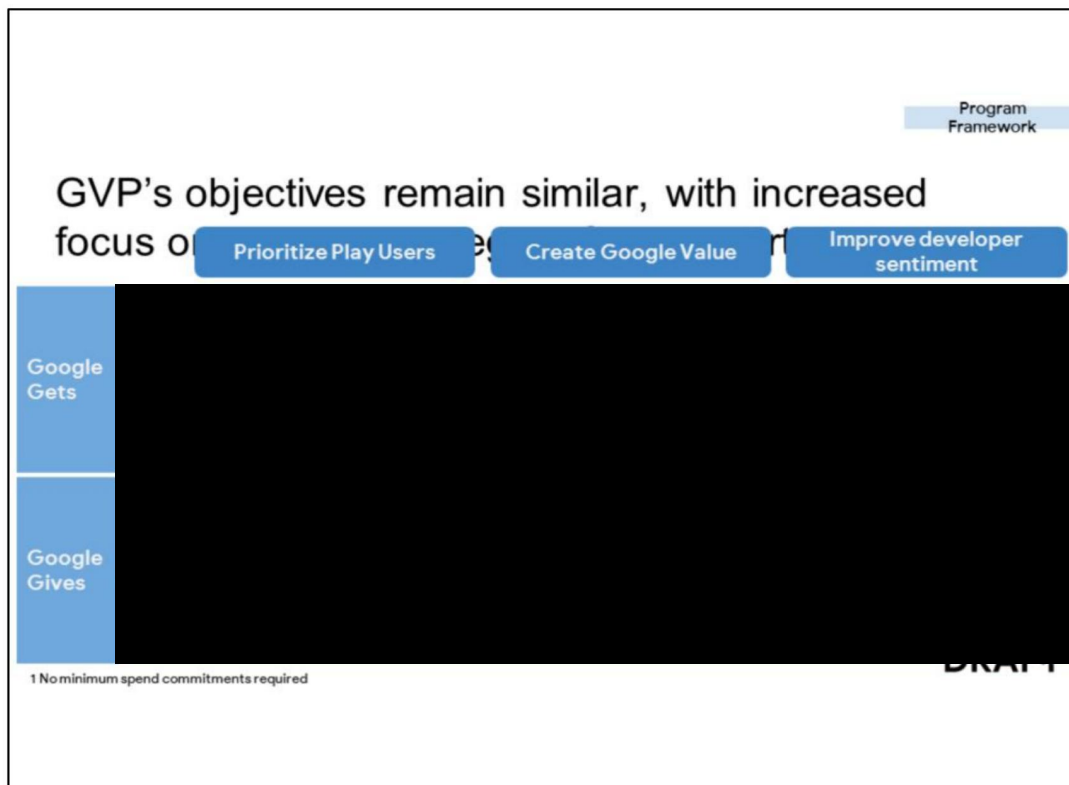
[REDACTED] Play's PC gaming strategy

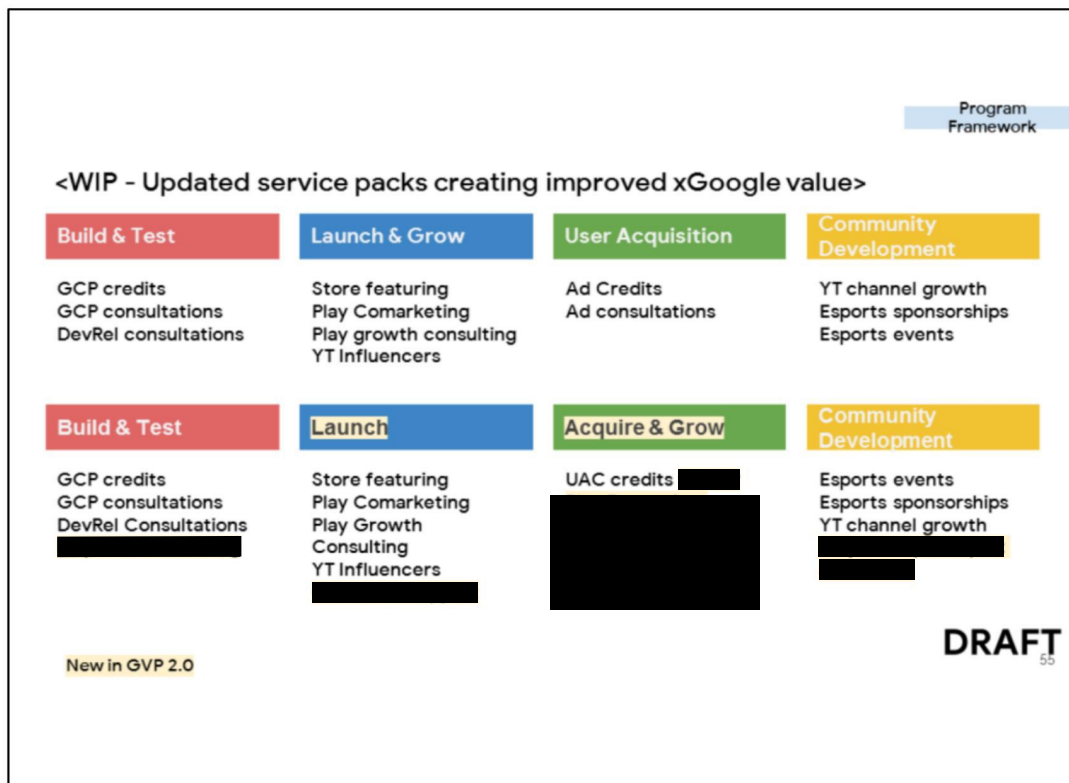
¹ Supercell who has not signed GVP is the only remaining rev share agitator



Program - results - roi external - roi internal - sentiment tracker



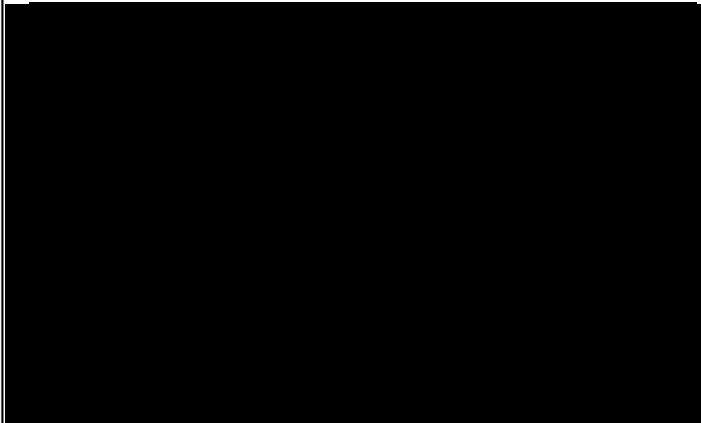




		GVP 1.0	GVP 2.0 (proposed)
Program Setup	Eligibility criteria		
	# of developers		
	% of Play Spend covered		
Program Framework	Program Objective	Mitigate Play distribution risk	Incentivize joint growth
	Google Gives		
	Google Gets		
Program Financials	Play % reinvested		

56

GVP 1.0 is ROI positive even without [REDACTED] Play risk mitigation; outsized [REDACTED]
[REDACTED]. 7/18 deals are positive, 3 more likely to be.



Program ROI positive even without [REDACTED] Play risk mitigation

Comarketing investments of [REDACTED] (over 2019-2024) expected to recoupe [REDACTED] of value not reflected in ROI

[REDACTED] expected to sign incremental GCP commits [REDACTED] and turn [REDACTED]
[REDACTED]

- 1 Ads has attributed GVP margin upside for the duration of the credits (2020 for most devs, [REDACTED] of UAC margin uplift in 2019, and [REDACTED] thereafter
- 2 GCP has attributed GVP margin upside until 2024, due to commits secured via GVP, as well as long term nature of GCP partnerships
- 3 We are evaluating upside driven by Comarketing; while ROI is not +ve, we have recouped X% of comarketing investments which do not reflect in the chart above

57

GVP 2.0 Context & Summary: Build on GVP 1.0 success, address gaps & focus on joint growth

Build on GVP 1.0 success, address gaps	Focus on joint growth, address Play revenue risk	Continue to improve sentiment
<ul style="list-style-type: none"> ● Double down on GCP credits ● Refine Ads credits offer to address ROI gap ● Bolster consults, Play-YT engagement, features ● Leverage investment in Play Points, Promos ● Grossly simplify operations ● Address xPA accounting 	<ul style="list-style-type: none"> ● Shift GVP goalposts from simship to joint growth, as risk shifts from off-Play distribution to payments ● Drive joint business growth by aligning incentives with growth targets ● Support Android/Play platform growth by including product integrations requirements 	<ul style="list-style-type: none"> ● Expand from 1-year to multi-year deals to deepen partnership
<p>Shift focus from risk mitigation to joint growth & ROI, from launch on Play to enterprise deals across Google. Be prepared for public disclosure</p>		

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58

product commits? Better than expected?
Link to source

BC narrative

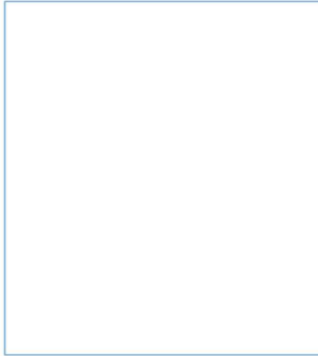
59

You approved GVP in April 2019; since then we have signed up 19/21 target devs; GVP met GVP's its objectives and success metrics

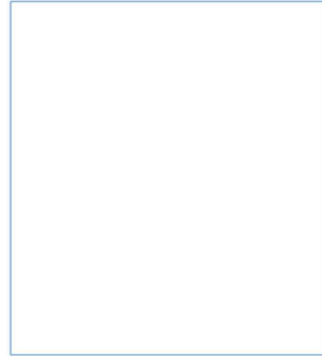
GVP approved in April 2019



GVP met its objectives



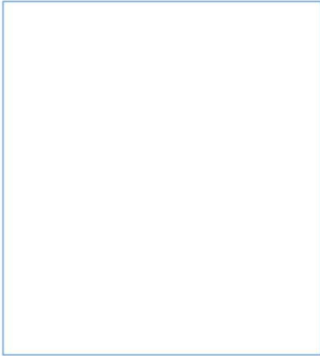
GVP exceeded most success metrics



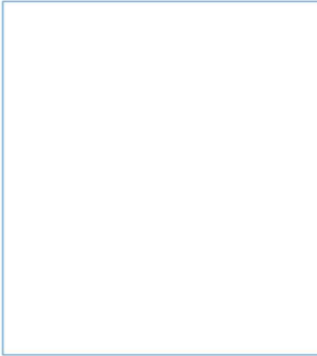
60

GVP created xGoogle value; developer sentiment improved, leading to better than expected risk mitigation; however, risk goalpost shifting from distribution to payments

Developers improved sentiment & deepened xGoogle relationships



GVP mitigated more than expected risk



Risk definition is now evolving to off Play payments



61

Proposal: 1. expand & pivot GVP to an enterprise game-dev program 2. link incentives to Google upside 3. secure SKU and/or Price parity to address Play payments risk

Offer GVP to enterprise game
developers

Link incentives to Google upside;
fix service packs to anchor on ROI

Address Play payments risk by
securing SKU and Price parity

62

	Deal structure option 1	Deal structure option 2	Deal structure option 3 (R)
Description			
Pros			
Cons			

64

Examples			
	Deal structure option 1	Deal structure option 2	Deal structure option 3 (R)
Description			

GVP 2.0: Build on GVP 1.0 success, address gaps & focus on joint growth

Build on GVP 1.0 success, address gaps	Focus on joint growth, address Play revenue risk	Continue to improve sentiment
<ul style="list-style-type: none"> ● Double down on GCP credits ● Refine Ads credits offer to address ROI gap ● Bolster consults, Play-YT engagement, features ● Leverage investment in Play Points, Promos ● Grossly simplify operations ● Address xPA accounting 	<ul style="list-style-type: none"> ● Evolve GVP goals beyond simship to also focus on joint growth, as risk shifts from off-Play distribution to payments ● Drive joint business growth by aligning incentives with growth targets ● Support Android/Play platform growth by including product integration requirements 	<ul style="list-style-type: none"> ● Expand from 1-year to multi-year deals to deepen partnership

Expand focus from risk mitigation to joint growth & ROI, from launch on Play to enterprise deals across Google. Be prepared for public disclosure

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product commits? Better than expected?
Link to source

Build on GVP 1.0 success by expanding Developer reach & focusing on joint growth		
Implement Learnings from GVP 1.0	Continue to foster Developer Retention	Double down on Joint Growth areas
<ul style="list-style-type: none"> ● Address ROI gap in Ads offer ● Bolster consults, Play-YT engagement, features ● Simplify operations ● Expand from 1-year to multi-year deals to deepen partnership 	<ul style="list-style-type: none"> ● Keep leveraging GVP to address continuing top developer concerns ● Evolve GVP goals beyond simship to also focus on joint growth, as risk evolves from off-Play distribution to payments 	<ul style="list-style-type: none"> ● Double down on GCP credits ● Drive joint growth by aligning incentives with growth targets ● Support Android/Play platform growth by including product integration requirements ● Leverage investment in Play Points, Promos ● Continue to improve sentiment

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67

product commits? Better than expected?
 Link to source

Id	Date	Text
3	02/04/2021 03:02:55	This is too vague I'm not sure what you're trying to convey... do you mean: Utilize GVP partnership to address continuing top developer concerns
7	02/04/2021 03:04:32	Something like this also leads nicely into the next slide that intros new developers
4	02/04/2021 03:17:42	@kgkaran@google.com Took a stab at this slide. Reshuffled/reorganized a bit. We can discuss tomorrow.
2	02/04/2021 03:18:50	(just reconciling with the previous success slide that highlights margin improvements for Ads)
5	02/04/2021 03:25:13	I'm being extra careful with wording here (it's risk)
6	02/04/2021 03:25:13	But also Divya's wording is pretty clever. As we want to retain Developers using our services aka billing platform.
1	02/04/2021 17:46:39	How come Ads has great margins but negative ROI
1	02/04/2021 17:46:39	They reevaluated... earlier breakeven was calculated as [REDACTED], but has been revised to [REDACTED] (breakeven is now defined at [REDACTED] in credits). Also, the ROI is based on "incremental" growth minus cost of credits, so while margins overall are great, cost of credits largely balances out incremental growth
68		

Exhibit D7

Public Redacted Version

EXHIBIT 8

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION**

**IN RE GOOGLE PLAY STORE
ANTITRUST LITIGATION**

Case No. 3:21-md-02981-JD

THIS DOCUMENT RELATES TO

Judge: Hon. James Donato

Epic Games Inc. v. Google LLC et al.,
Case No. 3:20-cv-05671-JD

OPENING EXPERT REPORT OF B. DOUGLAS BERNHEIM, PHD

October 3, 2022

Play,” meaning no early release or pre-registration period on a competing app store.¹⁰¹⁴ The document further states that [REDACTED]

[REDACTED]¹⁰¹⁵.

- (441) Finally, it is worth noting that Project Hug targeted many of the largest developers that Google considered most likely to go off Google Play.¹⁰¹⁶ For example, a 2019 Google presentation titled “Project Hug: Risk & Leakage Model” describes Google’s “major working hypotheses and assumptions” about developers as follows:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]¹⁰¹⁷

- (442) Another Google presentation from April 2019 titled “Boosting Top Game Developer Support & Securing Play Distribution on Samsung Devices” describes the characteristics of “target developers”:

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]¹⁰¹⁸

- (443) The [REDACTED] Project Hug agreements, discussed in Section V.B.3.a, would also prevent a Hug developer from exclusively launching its content to differentiate any app store it may develop.¹⁰¹⁹

¹⁰¹⁴ GOOG-PLAY-004146689 at -6697 (PX 0384) (December 2020 presentation titled “Games Velocity Program”).

¹⁰¹⁵ GOOG-PLAY-004146689 at -6706 (PX 0384) (December 2020 presentation titled “Games Velocity Program”).

¹⁰¹⁶ See additional detail in Section V.B.3.a.

¹⁰¹⁷ GOOG-PLAY-000005203 at -5216 (February 2019 presentation titled “Project Hug: Risk & Leakage Model”).

¹⁰¹⁸ GOOG-PLAY-003332817 at -2830 (PX 0136; PX 1455) (April 2019 presentation entitled “Boosting Top Game Developer Support & Securing Play Distribution on Samsung Devices”).

¹⁰¹⁹ See Section V.B.4.c for a discussion of Hug developers, such as ABK and Riot, contemplating launching their own app stores or going off-Play.

Opening Expert Report of B. Douglas Bernheim, PhD

A handwritten signature in black ink, appearing to read "B. Douglas Bernheim". The signature is fluid and cursive, with a long horizontal stroke at the end.

B. Douglas Bernheim, PhD

October 3, 2022

Date

Exhibit D8

Public Redacted Version

EXHIBIT 15

Message

From: Karen Aviram Beatty [kaviram@google.com]
Sent: 10/30/2019 6:28:19 PM
To: Purnima Kochikar [kochikar@google.com]; Shanna Prevé [shanna@google.com]
CC: Sunil Rayan [sunilrayan@google.com]; Marc Theermann [theermann@google.com]; Ryan Wyatt [rwyatt@google.com]; Erica Larson [larsone@google.com]; Lawrence Koh [lawrencekoh@google.com]; Vince Abney [vabney@google.com]; Jeff Birnbaum [jbirnbaum@google.com]
Subject: Zeitgeist updates re [REDACTED]

Hi team,

I spent a good amount of time with Armin at Zeitgeist. Shanna and Purmina (and Don) also had separate conversations with Armin.

Armin mentioned to me that we all had consistent messaging (ie rev share will not change), but it did feel like he was testing us! So, thanks to you all and let's please continue to keep our strong communication lines open so we can also continue to be on the same page.

Some notes from my conversation with Armin:

[REDACTED] He reiterated the fact older titles get less value on Play vs new titles.

Marc - Could you/Alex can help with this and we can look at the numbers differently? For example, can we put

[REDACTED]
 [REDACTED]
 [REDACTED]
 conversations in the next week or two but need a concrete proposal ASAP before we miss our chance/time window.

[REDACTED] I asked him if this was a done deal ... and sounds like it's not (ie they are still weighing the need). He responded that this decision is dependent on if they can find the right deal/solution with us.

[REDACTED]
 [REDACTED]
 - They are planning to make a decision on Cloud, Platform, Ads **BEFORE the holidays**.

[REDACTED]
 [REDACTED]
 [REDACTED] Shanna met with Armin after these comments and had a productive chat to address these concerns. They are going to work on a Stadia structure together for an updated proposal and working on a follow up meeting (~Nov 15).

@Purnima Kochikar Would love to hear your takeaways from your conversation with Armin as well.

@Shanna Prevé I think I summarized your status per our other email, but feel free to add any other color Armin may have mentioned about the other PAs.

Thanks all,
Karen

Karen Aviram Beatty	Managing Director, Global Partnerships	kaviram@google.com
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 Direct:
212-565-5961 Mobile: 917-284-8411

Exhibit D9

Public Redacted Version

EXHIBIT 23

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

IN RE GOOGLE PLAY STORE
ANTITRUST LITIGATION

Case No. 3:21-md-02981-JD

THIS DOCUMENT RELATES TO:

Epic Games Inc. v. Google LLC et al.,
Case No. 3:20-cv-05671-JD

In re Google Play Consumer Antitrust
Litigation, Case No. 3:20-cv-05761-JD

State of Utah et al. v. Google LLC et al.,
Case No. 3:21-cv-05227-JD

Match Group, LLC, et al. v. Google LLC,
et al., Case No. 3:22-cv-02746-JD

EXPERT REPORT OF CATHERINE E. TUCKER

NOVEMBER 18, 2022

NON-PARTY HIGHLY CONFIDENTIAL – OUTSIDE COUNSEL EYES ONLY

b. The Schwartz Report claims Google “[is] not constrained by the possibility of OEMs developing their own mobile OSs.”⁷⁰⁴ However, this report does not conduct an actual SSNIP test.⁷⁰⁵

370. This is similar to the assertion in the Bernheim Report that justifies much of the empirical machinery that follows, which states: “In response to a SSNIP (or equivalent quality degradation) involving third-party OSs for Android smartphones, OEMs would not create their own OSs. Any such endeavor would be prohibitively costly, complex, and risky,” and adds that “[e]ven if the economic burden of a SSNIP involving third-party OSs fell on users of third-party OS smartphones, those users would face high costs of switching to an iPhone or another computing device[.]”⁷⁰⁶

371. The Bernheim, Singer and Schwartz Reports list a number of unsuccessful attempts to create a new smartphone operating system and note that since 2015, there has been “no commercial release of a new third-party smartphone operating system outside of China.”⁷⁰⁷

372. However, these assertions show that an operating system is indeed expensive and difficult to build in as high a quality an ecosystem as Android has, and that by investing in this enterprise, Android has allowed handset manufacturers, as part of the Android ecosystem, to compete effectively with Apple.

C. Plaintiffs’ Separation of the Android App Distribution and In-App Payment Processing Markets is Flawed

1. Plaintiffs’ Definition of Single Components of the Android Ecosystem as Separate Markets Leads to Flaws in Their Alleged Market Definition Exercises

373. Plaintiffs’ expert reports seek to define separate markets for Android app distribution and in-app payment processing.

a. The Tadelis Report defines a market for “In-App Payment Solutions.” The Tadelis Report goes on to compare the Google Play store’s fees to the fees charged by third-party payment processors such as PayPal, Stripe, Square, and Braintree.⁷⁰⁸ In addition, the Tadelis Report

⁷⁰⁴ Schwartz Report, ¶ 204.

⁷⁰⁵ Schwartz Report, ¶ 175.

⁷⁰⁶ Bernheim Report, ¶ 145.

⁷⁰⁷ Bernheim Report, ¶ 148. *See also* Singer Report, ¶ 59; Schwartz Report, ¶ 204.

⁷⁰⁸ Tadelis Report, ¶¶ 37-38.

adopts the Bernheim Report’s opinion that “the market for Android App Distribution is a relevant antitrust market.”⁷⁰⁹ The Tadelis Report states: “the Android In-App Payment Solution market is a distinct, standalone market and one that is separable from Android app distribution services.”⁷¹⁰

- b. The Schwartz Report defines a market for “IAP Processing.” The Schwartz Report agrees with Match Plaintiffs that there is “a relevant market for service providers that process payments for digital content within Android apps.”⁷¹¹ In addition, the Schwartz Report claims that the Android App Distribution is a relevant market stating that the “Android digital IAP processor market is downstream of, but distinct from, the Android app distribution market.”⁷¹²
- c. The Rysman Report defines a market for “In-App Billing Services.” According to the Rysman Report, “Android in-app billing services ... includes receiving payment and authorizing the unlocking of purchased in-app content and may also include invoicing, payment history, and refund processing.”⁷¹³ In addition, the Rysman Report defines a separate market for Android App Distribution arguing that the “market for Android in-app transactions is separable from the market for Android App Distribution.”⁷¹⁴
- d. The Singer Report defines a market for an “In-App Aftermarket.”⁷¹⁵ In defining the alleged aftermarket, the Singer Report states, “[t]o provide In-App Content, developers must be able to authorize consumers to use such content and consumers must be able to pay for it ... distribution of In-App Content is not complete until the consumer can use those items, and that does not occur until payment is processed and the feature is unlocked.”⁷¹⁶ In

⁷⁰⁹ Tadelis Report, ¶ 88, (“For the purposes of my analysis, I adopt Dr. Bernheim’s opinion that the market for Android App Distribution is a relevant antitrust market. I have reviewed Dr. Bernheim’s report and find it to be persuasive and consistent with my own views, but I offer no independent opinion on this point.”), citing Bernheim Report, Section III.E.

⁷¹⁰ Tadelis Report, ¶ 127.

⁷¹¹ Schwartz Report, ¶ 289.

⁷¹² Schwartz Report, ¶ 196-198, (“Match Plaintiffs allege that three markets are relevant to the analysis of the claims in the Complaint ... b. Distribution of Android Apps ... I analyze each of these alleged relevant markets ... The analysis below demonstrates that each of these markets are relevant markets for purposes of this case.”).

⁷¹³ Rysman Report, ¶ 238.

⁷¹⁴ Rysman Report, ¶ 277, (“I find the Android In-App Billing Services Market worldwide excluding China is a relevant antitrust market. The market for Android in-app transactions is separable from the market for Android App Distribution to the extent that third-party billing service providers and developers’ own billing systems sufficiently meet developers’ demand for Android in-app billing services and are considered as substitutes for Google Play Billing.”).

⁷¹⁵ Schwartz Report, Section 11; Tadelis Report, Section V.C; Rysman Report; Singer Report.

⁷¹⁶ Singer Report, ¶ 142.

addition, the Singer Report identifies as a distinct relevant market the “Android App Distribution Market, defined as the market for the sale and distribution of Apps for Android mobile devices,”⁷¹⁷ and claims that “the Android App Distribution Market and In-App Aftermarket are economically distinct.”⁷¹⁸

374. For numerous reasons, Plaintiffs’ expert reports’ definition of separate markets does not make economic sense and mischaracterizes competitive realities faced by Google.
375. First, as I explained in Section III.D, defining a market limited to app distribution results in a market that consists almost entirely of free products. This is because only █% of downloads on the Google Play store in the United States from August 2019 to May 2021 were paid, meaning Google does not charge a service fee for most downloads.⁷¹⁹ Indeed, in 2021, just █% of U.S. consumer spending on the Google Play store was for paid app downloads.⁷²⁰ The fact that Plaintiffs’ expert reports’ proposed Android app distribution market consists almost entirely of free products suggests that this market definition fails to reflect important competitive realities regarding the Google Play store. While Plaintiffs’ expert reports contend, as discussed in Section VIII, that Google is earning supracompetitive profits from the Google Play store by harming consumers in the Android app distribution market, they exclude virtually all of the monetized transactions from their analysis.
376. Second, Plaintiffs’ expert reports define a market for transactions in which developers use a particular monetization strategy (in-app payments) and in which transactions with alternative monetization strategies, or none at all, are excluded. However, as a matter of economics, a relevant antitrust market must include relevant transactions that are sufficiently substitutable to competitively constrain the focal firm’s conduct. For example, users can use apps such as

⁷¹⁷ Singer Report, ¶ 86 (“In this section, I demonstrate that the Android App Distribution Market, defined as the market for the sale and distribution of Apps for Android mobile devices, is a distinct relevant antitrust market.”).

⁷¹⁸ Singer Report, ¶ 87.

⁷¹⁹ App-level spend data, Consumers, GOOG-PLAY-005535886 and GOOG-PLAY-010801688; Monthly Aggregate Installs by Country, GOOG-PLAY-007376326. This percentage reflects U.S. downloads on the Google Play store between August 2019 and May 2021. The number of paid downloads on the Google Play store (██████████) is equal to the total item_count for all app transactions in the App-level spend data, where the app_monetization_type is “APP SALE.” I count the number of total downloads (of free apps and paid apps) on the Google Play store as the number of first-time installations, rather than the number of times that apps were downloaded, to avoid double-counting instances of an app being downloaded multiple times. Specifically, the total number of downloads (██████████) is estimated by summing user_total_monthly_installs in the Monthly Aggregate Installs data, where country is “US,” first_time is “FIRST_TIME” and acquisition_mechanism does not equal “PREINSTALL.”

⁷²⁰ App-level spend data, Consumers, GOOG-PLAY-005535886 and GOOG-PLAY-010801688.

Candy Crush Saga, Tinder, and Pandora for free today, but can easily substitute to making in-app purchases or purchase a subscription version in the future.⁷²¹ By the same logic, users who make payments in these apps today can easily stop making in-app purchases or cancel the subscription if prices were to rise in the future. A market limited to in-app payments ignores the millions of free apps and billions of free app transactions that the Google Play store has facilitated, which has been critical to the Google Play store's success. Therefore, Plaintiffs' expert reports' proposed market limited to in-app payments ignores a large share of output of the Google Play store.

377. Third, as explained in Section III.D, separating app downloads and other kinds of digital content transactions into separate markets does not make sense because the relationship between the two is important to Google's competitive strategy for the Google Play store. The evidence cited shows that charging developers nothing for free downloads and only charging a service fee when developers earn revenue from digital content transactions in apps downloaded from the Google Play store is a tool that Google uses to expand app distribution and make both the Google Play store and the Android ecosystem more competitive. It therefore does not make economic sense to separate app distribution and other digital content transactions into different markets.

2. Plaintiffs Conflate Google's Service Fee with a Fee for Payment Processing and Are Inconsistent Regarding Which Alleged Market Should Include Payments for App Downloads

378. Google's service fees are not payments for payment processing but rather a developer-friendly way of structuring Google's compensation for building and maintaining the Google Play store to facilitate transactions between users and developers. The fact that in Korea and Europe, Google has continued charging developers service fees on digital content transactions even

⁷²¹ App Catalog Data, GOOG-PLAY-001507601.

when they do not use the Google Play store's billing system⁷²² reinforces that Google's service fees are not primarily for payment processing.

379. The Bernheim and Rysman Reports illustrate this point in taking inconsistent and unclear positions regarding whether Google's service fees are for app distribution or in-app payment processing, or both. The Bernheim Report, in stating that "commission rates and profits for in-app purchases are directly relevant for evaluating Google's monopoly power in app distribution,"⁷²³ acknowledges the importance of accounting for the relationship between in-app purchases and app downloads. Similarly, as evidence of Google's purported monopoly power in the alleged Android app distribution market, the Rysman Report provides evidence of Google's "commission on developers' app revenues."⁷²⁴ However, the Rysman Report cites to the same "commission for sales of apps and in-app purchases via Google Play Billing" as evidence of Google's purported monopoly power in the alleged Android In-App Billing Services Market.⁷²⁵ The Rysman Report also specifically analyzes a combined market that includes both downloads as well as subscriptions and in-app purchases, reinforcing that it is not logical to divide these transactions into separate markets.⁷²⁶ Similarly, the Singer Report relies on data sources that "aggregate" revenues from downloads and in-app purchases to argue that "the Play Store and the Apple App Store account for the vast majority of mobile app expenditures outside China".⁷²⁷
380. All developers that use the Google Play store get access to billions of Android devices, Play Protect, Play console tools, app updates, user discovery features, user engagement tools, app

⁷²² Li, Abner, "Google Play will allow alternate IAP billing in South Korea, charge reduced service fee," *9to5Google*, November 4, 2021, available at: <https://9to5google.com/2021/11/04/google-play-store-korea/> ("Meanwhile, apps that use alternate billing and are distributed via Google Play will still be subject to service fees."); Werth, Estelle, "An update on Google Play billing in the EEA," *Google Keyword*, July 19, 2022, available at: <https://blog.google/around-the-globe/google-europe/an-update-on-google-play-billing-in-the-eea/>, ("Developers who choose to use an alternative billing system will need to meet appropriate user protection requirements, and service fees and conditions will continue to apply in order to support our investments in Android and Play. When a consumer uses an alternative billing system, the service fee the developer pays will be reduced by 3%.")

⁷²³ Bernheim Report, ¶ 462.

⁷²⁴ Rysman Report, ¶ 284.

⁷²⁵ Rysman Report, ¶ 348.

⁷²⁶ Rysman Report, ¶ 223.

⁷²⁷ Singer Report, ¶ 122.

publishing and development tools, app analytics tools, and trust and safety measures.⁷²⁸ The fact that Google decides to charge a service fee to developers of free apps only when users make payments for sales of digital content in those apps does not mean that Google's fee is only for processing that payment.

381. More generally, it is not economically correct that a transaction platform that charges fees only when transactions are made rather than for upfront access is charging for processing the payments involved in the transactions. Transaction platforms across the economy do not charge (or charge small fees) for access to their platforms and instead only charge when transactions are completed, including: the Apple App Store;⁷²⁹ Amazon Appstore;⁷³⁰ Samsung Galaxy Store;⁷³¹ Microsoft Store;⁷³² Epic Games Store;⁷³³ Steam;⁷³⁴ Nintendo E-Shop;⁷³⁵ Amazon Prime Video Direct;⁷³⁶ Kindle Direct Publishing;⁷³⁷ Nook;⁷³⁸ Shutterstock;⁷³⁹ Amazon

⁷²⁸ Google Presentation, "Play Value Model," August 8, 2019, GOOG-PLAY-000337564-631, at 572 ("Multiple sources of Play value ... User acquisition ... Play-owned discovery (e.g. PREX, Top charts, cat search, pre-reg, SMERCH)... Engagement (e.g., SMERCH, editorials, LiveOps, instant games, YT/Play integration ... Publishing & distribution (e.g. WW distribution, device targeting, APK improvements) ... Trust & safety (Play Protect, anti-piracy, ML models for malware, app signing) ... Analytics and insights (e.g. store listing experiments, Console analytics) ... Play services (e.g. GMS Core APIs)"); Google Presentation, "Play Business Model Thoughts," Undated Document, GOOG-PLAY-000565541-562, at 545 ("All of the developers who are out-of-scope for GPB (Play Billing) receive the benefits of: 1. Play's distribution network across 2.6B Android devices 2. Play Protect 3. Play Console tools (Beta testing, pre-launch reporting, store listing experiments, etc.) 4. App updates[.]").

⁷²⁹ Bohn, Dieter, "The Apple App Store: A Brief History of Major Policy Changes," *The Verge*, September 10, 2021, available at: <https://www.theverge.com/22667242/apple-app-store-major-policy-changes-history>.

⁷³⁰ "Amazon Developer Services Agreement," *Amazon Developer*, June 9, 2021, available at: <https://developer.amazon.com/support/legal/da>.

⁷³¹ "Terms and Conditions," *Samsung Galaxy Store Seller Portal*, August 13, 2020, available at: <https://seller.samsungapps.com/help/termsAndConditions.as>.

⁷³² "App Developer Agreement," *Microsoft Store*, June 16, 2022, available at: <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE4YJB0>.

⁷³³ "Frequently Asked Questions," *Epic Games Store*, available at: <https://www.epicgames.com/store/en-US/about>, accessed on November 16, 2022.

⁷³⁴ "New Revenue Share Tiers and other updates to the Steam Distribution Agreement," *Steamworks Development*, November 30, 2018, available at: <https://steamcommunity.com/groups/steamworks/announcements/detail/1697191267930157838>.

⁷³⁵ Marks, Tom, "Report: Steam's 30% Cut is Actually the Industry Standard," *IGN*, October 7, 2019, available at: <https://www.ign.com/articles/2019/10/07/report-steams-30-cut-is-actually-the-industry-standard>.

⁷³⁶ "Compensation details," *Prime Video Direct Support*, available at: <https://videodirect.amazon.com/home/help?topicId=G202037410>, accessed on August 25, 2022.

⁷³⁷ Wogahn, David, "The 2022 Guide to Amazon Fees and Royalties for Kindle eBooks and KDP Print," *Author Imprints*, January 5, 2022, available at: <https://www.authorimprints.com/amazon-kdp-royalty-pricing/>.

⁷³⁸ "Barnes & Noble Press Royalty and Payment," *B&N Press*, available at: <https://press.barnesandnoble.com/legal/royalty-payment-terms>, accessed on November 8, 2022.

⁷³⁹ "Shutterstock Earnings Schedule," *Shutterstock*, available at: <https://submit.shutterstock.com/payouts>, accessed on November 8, 2022.

Music;⁷⁴⁰ iTunes;⁷⁴¹ and Bandcamp.⁷⁴² These platforms are trying to attract consumers to the platform, not monopolizing payment processing. When Uber or Airbnb charges a service fee on a ride or stay, they are not charging users, drivers or hosts for merely processing the payment for the transaction; they are charging for the value that the platform has provided in facilitating the transaction. The same is true for the Google Play store: By not charging service fees on downloads of free apps and only charging fees on those apps for purchases of digital content in the apps, Google is trying to attract users and developers to make their apps available in the Google Play store. When Google collects its service fee on purchases of digital content in free apps downloaded via the Google Play store, Google is not charging for payment processing; it is collecting a fee for the service of facilitating the transaction—from making the download possible, to creating a secure platform where users and developers have the confidence to transact, and through the purchase of digital content in the app—that it had not yet collected.

3. Plaintiffs Fail to Consider Services Supporting Transactions After Apps Have Been Downloaded

382. The Tadelis, Rysman, Singer and Schwartz Reports attempt to segregate downloads from later transactions also ignores that Google provides services to developers after apps have been downloaded. The Singer Report is not correct that the “Play Store is not needed” after an initial download.⁷⁴³ For example, the Google Play store supports developers’ updates to their apps, which can include fixing bugs, patching security issues, importing redesigns or launching new features that make new subscription or in-app payments content available. Match Group’s apps have pushed hundreds of version updates to users in recent years using the Google Play store. In 2021, Match Group released 32 version updates for Tinder on the Google Play store, while OkCupid, PlentyofFish, Match and Our Time had 69, 35, and 25, and 17 version updates on the Google Play store, respectively.⁷⁴⁴ See Table 9. Such upgrades enable developers to deliver patches and new features to users and for users to be sure they have the most up-to-

⁷⁴⁰ “Amazon Music Unlimited FAQs,” *Amazon Music*, available at: <https://www.amazon.co.uk/b?ie=UTF8&node=11741995031>, accessed on November 16, 2022.

⁷⁴¹ Wingfield, Nick and Ethan Smith, “Music’s New Gatekeeper,” *The Wall Street Journal*, March 9, 2007, available at: <https://www.wsj.com/articles/SB117340340327331757>.

⁷⁴² Ratliff, Ben, “Is Bandcamp the Holy Grail of Online Record Stores?,” *The New York Times*, August 19, 2016, available at: <https://www.nytimes.com/2016/08/20/arts/music/bandcamp-shopping-for-music.html>.

⁷⁴³ Singer Report, ¶ 143.

⁷⁴⁴ Match Group App Updates on the Google Play Store, Match App Updates Data.xlsx, 2016-2022.

date and secure apps. Google Play store users have installed tens of billions of version updates.⁷⁴⁵

Table 9
Number of Match Group App Version Updates on the Google Play Store
United States, September 2016–August 2022

	Sep-Dec 2016	2017	2018	2019	2020	2021	Jan-Aug 2022	Total
OkCupid	10	28	44	56	68	69	36	311
Tinder	18	34	48	38	28	32	18	216
PlentyofFish	9	35	31	33	39	35	19	201
Match	14	33	20	25	31	25	11	159
Our Time	10	5	13	8	14	17	5	72
Total	61	135	156	160	180	178	89	959

Notes:

[1] Number of version updates for an app in a particular year is based on unique values of “version_name” within that year. Data is filtered to version updates that were likely to be released in the United States, including versions that have “language_code” equal to “en-US” and versions where “language_code” variable is missing.

[2] App updates are calculated for the following “package_name” values: “com.tinder,” “com.okcupid.okcupid,” “com.pof.android,” “com.match.android.matchmobile,” and “com.peoplemedia.ourtime.”

[3] Our Time updates include updates from August 25, 2016 to March 28, 2022.

Source:

Match Group App Updates on the Google Play Store, Match App Updates Data.xlsx, 2016-2022.

383. The Google Play store also facilitates subscription management services for developers, including allowing users to re-subscribe after cancelling subscriptions, receive refunds on subscriptions, pause subscriptions, restart payments or change the payment method.⁷⁴⁶

D. Plaintiffs’ Proposed App Distribution Market is Flawed

384. Notwithstanding that it is inappropriate as a matter of economics to define a separate app distribution market that does not include other digital content transactions, Plaintiffs’ proposed Android app distribution market is also flawed and unsupported.

⁷⁴⁵ For example, in October 2020 there were approximately [REDACTED] installs worldwide including updates from the Google Play store, of which approximately [REDACTED] were new downloads, suggesting more than [REDACTED] updates or reinstallations served by the Google Play store. See cell C2 in Total Play and non-Play Installs, GOOG-PLAY-011142435 and cell BD76 in Google Play store Entitlements Data by Category, GOOG-PLAY-000808464.

⁷⁴⁶ “Cancel, pause, or change a subscription on Google Play,” *Google Play Help*, available at: <https://support.google.com/googleplay/answer/7018481>, accessed on November 3, 2021; <https://support.google.com/googleplay/answer/7018481>, accessed on October 29, 2022.

1. Plaintiffs Characterize Developer Decisions as Binary and Therefore Miss the Margin of Competition

385. The Bernheim, Rysman and Singer Reports argue that the Google Play store and the Apple App Store are complementary because most developers use both stores. These reports argue that developers view different platforms not as substitutes but as complements, and erroneously conclude that this means that developer multihoming does not constrain Google.⁷⁴⁷ The key mistake is that they characterize competition for developers as binary, when in reality, competition in this market is continuous—the constant competition to try and ensure that developers devote time and effort to improving their app for that platform. This is something I elaborate on in Section IV, when I discuss the evidence of continuous competition between the Google Play store and the Apple App Store for sim-ship and parity in developer investment.
386. For similar reasons, the Bernheim Report’s argument that developers do not view consoles and smartphones as substitutes because developers “did not abandon Minecraft” on smartphones when it was released on Xbox and Nintendo Switch is flawed.⁷⁴⁸ This, again, ignores that the Google Play store competes not only to have developers choose to distribute via the Google Play store but also to make investments in the apps they share via the Google Play store as opposed to apps shared via another platform. To continue to make Minecraft available on an array of operating systems intensifies the continuous competition for revenue-generating Minecraft transactions and the broader competition for the facilitation of digital content transactions across platforms.
387. Contrary to the Bernheim, Rysman and Singer Reports’ characterization of the competition for developers between the Google Play store and the Apple App Store, I show in Section V that users multihome to access app content across different platforms, which reduces users’ switching costs and gives developers options to monetize their content on these platforms. The fact that Google serves multihoming users who decide on which platform to access and pay for content and multihoming developers who decide how much time and effort to devote across platforms means that the Google Play store faces competition for the facilitation of digital content transactions on both sides of the platform.

⁷⁴⁷ Bernheim Report, Section III.E.4; Singer Report, ¶¶ 56-57; Rysman Report, ¶¶ 45, 192.

⁷⁴⁸ Bernheim Report, ¶ 209.

2. *Plaintiffs Are Incorrect that Web Apps Should Be Excluded from the Relevant Market*

a. *Plaintiffs' Expert Reports Focus on Time Spent*

388. The Bernheim and Rysman Reports' arguments for why web apps are not reasonable substitutes that should be included in the relevant market are flawed and ignore the competitive constraint that websites and progressive web apps exert on the Google Play store. The Bernheim Report states that "[t]he functional limitations of web apps result in much lower usage on smartphones than native apps."⁷⁴⁹ The Rysman Report similarly claims that "consumers spend the overwhelming majority ... of their time in native apps[.]"⁷⁵⁰ These arguments ignore that time spent is not the sole measure relevant to assessing whether web apps and native apps are reasonable substitutes. Developers may focus their competitive efforts on growing the number of active users rather than, or in addition to, the time users spend on an app. Economic literature has shown that time spent online does not correlate with monetization potential. One study found that lower income individuals "are particularly likely to do time-consuming, inexpensive activities online[.]"⁷⁵¹ A focus on growing the number of users would be consistent with an developer's long-run incentives to maximize its user base and diversify the ways in which it can monetize that user base. A growing number of users who frequently and consistently access the app—even if people log on for just a few minutes each day—can reflect that an developer is providing a positive user experience.
389. Figure 32.A replicates Exhibit 30 from the Bernheim Report but displayed as the total visitor count⁷⁵² on native apps and web apps instead of time spent share for each of the same app categories used in the Bernheim Report. These data reveal that the visitor count on web apps is substantial. I also recreate the exhibit using the top app categories ranked by total visitor count and find an even higher number of visitors who access an app via the mobile web (see Figure 32.B). Such usage highlights the substitutability between web apps and native apps accessed through the Google Play store.

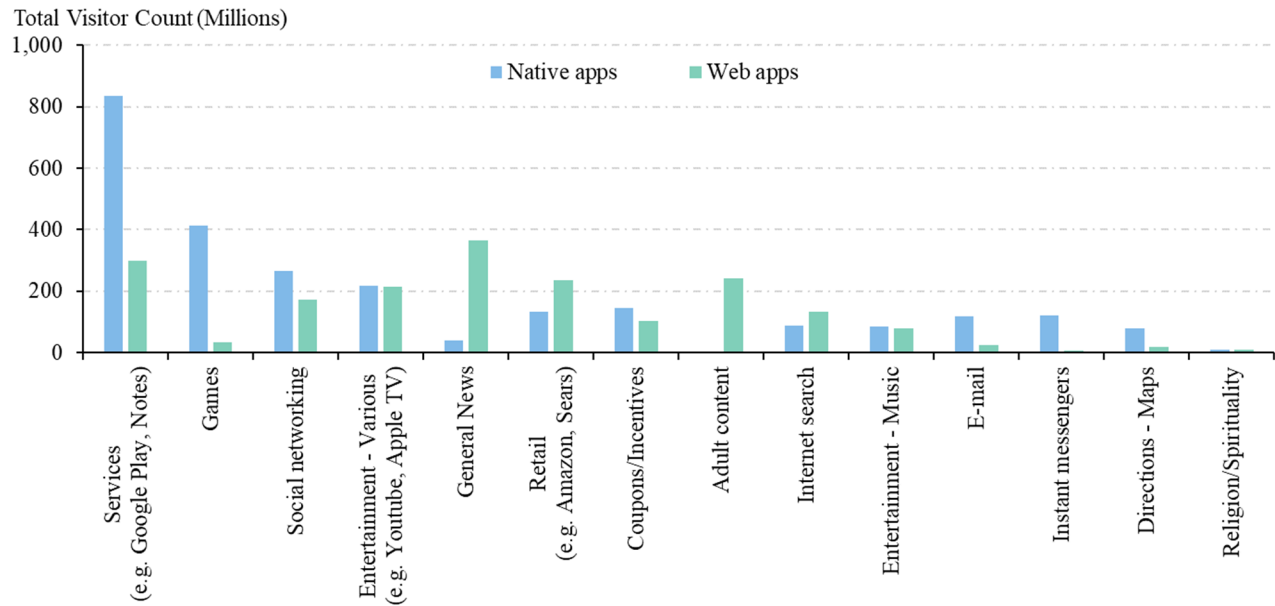
⁷⁴⁹ Bernheim Report, ¶ 214.

⁷⁵⁰ Rysman Report, ¶ 216.

⁷⁵¹ Goldfarb, Avi and Jeff Prince, "Internet adoption and usage patterns are different: Implications for the digital divide," *Information Economics and Policy*, Vol. 20, No. 1, 2008, (pp. 2-15), p. 14.

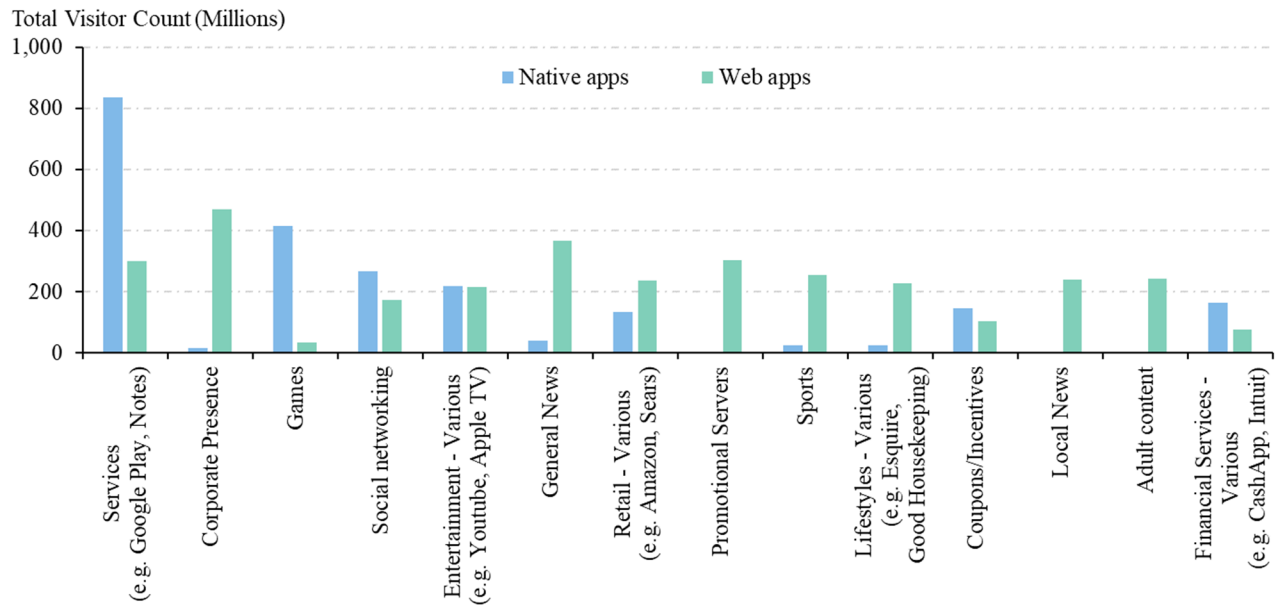
⁷⁵² Total visitor count for native apps or web apps in a given category is calculated as the sum of Total Unique Visitors for all native apps or all web apps in that category in the Comscore data. See Appendix C.

Figure 32.A
Total Visitor Count for Top Categories by Total Minutes on Android Smartphones
United States, May 2022



Notes and Sources:
 See Appendix C.

Figure 32.B
Total Visitor Count for Top Categories by Total Visitor Count on Android Smartphones
United States, May 2022



Notes and Sources:
 See Appendix C.

390. In addition, the Bernheim Report claims that there is little to no substitution in terms of time played between the use of Fortnite on smartphones and other devices.⁷⁵³ The Bernheim Report evaluates a natural experiment based on the removal of the Fortnite app from the Google Play store and the Apple App Store on August 13, 2020. However, the Bernheim Report's analysis is not reliable and therefore cannot support the conclusion that substitution across devices is not sufficient for other platforms to competitively constrain Google for several reasons. To begin with, consoles and other app stores do not need to be perfect substitutes to the Google Play store in order to serve as a competitive constraint on the Google Play store. The Bernheim Report's analysis of the Fortnite natural experiment shows that Google Play store users do in fact use other platforms to access and spend on and play Fortnite. These alternative ways that users multihome to access app content competitively constrain the Google Play store. In addition, I show in Appendix E Section A that when I use the Bernheim Report's model to examine spending instead of time played, I find evidence that suggests that Google Play users substituted to making more monetized transactions on PCs and consoles after Fortnite was removed from the Google Play store.

b. Plaintiffs Mostly Appear to Imply That The Internet Is Not Required For Apps Downloaded from an App Store

391. The Singer Report asserts that “[w]eb apps are no substitute for apps on the Play Store,” because they “require an internet connection[.]”⁷⁵⁴ The Rysman Report asserts simply that “web apps require connection to the internet” and that “consumers do not find web-based apps as to be sufficiently adequate substitutes for native Android mobile apps[.]”⁷⁵⁵ However, many native apps require the internet to be functional. For example, the Fortnite App needs an internet connection to operate.⁷⁵⁶ The Tinder app likewise needs an internet connection to operate.

⁷⁵³ Bernheim Report, ¶¶ 196, 199-201, Appendix C.

⁷⁵⁴ Singer Report, ¶ 104.

⁷⁵⁵ Rysman Report, ¶¶ 213, 218.

⁷⁵⁶ “Can I play Fortnite in offline mode?,” *Epic Games*, available at: <https://www.epicgames.com/help/en-US/fortnite-c5719335176219/technical-support-c5719372265755/cani-play-fortnite-in-offline-mode-a5720402868507>, accessed on November 9, 2022.

3. Plaintiffs Misinterpret and Mischaracterize Evidence on the Substitutability of Sideloaded and Alternative App Stores and the Google Play Store

392. The Bernheim, Rysman and Singer Reports also claim that sideloading is not a viable alternative to access content outside of the Google Play store.⁷⁵⁷ However, Plaintiffs' expert reports provide no explanation for data that indicate that █% of apps on Android smart devices are installed through means other than the Google Play store. Specifically, based on the source cited in the Rysman and the Schwartz Reports, replicating the calculations used in their reports suggests that only █%⁷⁵⁸ of apps on Android smart devices are user-installed via the Google Play store and that █% of apps in the underlying data source are pre-installed apps that do not update through the Google Play store.⁷⁵⁹ These data highlight that the majority of apps are updated outside of the Google Play store. Further, the Plaintiffs' expert reports ignore that █% of Android phones and tablets in the United States as of July 2021 had a third-party app store pre-installed.⁷⁶⁰ Data from August 2020 to June 2022 suggest that a substantial portion of users employ these pre-installed or other non-Google Play store options to download apps. For example, in June 2022, █% of Android devices in the United States had at least one non-pre-installed app installed from a non-Google Play store source.⁷⁶¹ In addition, even if observed rates of user-initiated installs from non-Google Play store sources were low, evidence of high pre-installation but low usage simply indicates that users prefer to download apps from the Google Play store.

4. The Bernheim Report Incorrectly Excludes Tablets from the Relevant Market

393. The Bernheim Report would exclude tablet transactions from its proposed Android app distribution market “[b]ecause users are reluctant to migrate their app usage to other devices, developers would not find it profitable to terminate app distribution on Android in response to

⁷⁵⁷ Rysman Report, ¶ 425; Bernheim Report, ¶ 407; Singer Report, ¶ 241.

⁷⁵⁸ Apps by Source, GOOG-PLAY-001508603.

⁷⁵⁹ Apps by Source, GOOG-PLAY-001508603. These pre-installed apps include system apps, which users may not see or interact with. See also Rysman Report, ¶ 52; Schwartz Report, ¶ 265.h.

⁷⁶⁰ Third Party App Store Data, GOOG-PLAY-007203253, (“Devices with multiple app store”). Other app stores include Samsung Galaxy Store, Amazon Appstore, LG Smart World, Xiaomi Market, Huawei App Gallery, ONE Store, Oppo, Vivo and ShareIT.

⁷⁶¹ Devices with at least one non-Play, non-preloaded app installed, GOOG-PLAY-011354602. Data are restricted to GMS devices and provided as monthly snapshots. In June 2022, █ percent of Android devices worldwide (excluding China) had at least one non-pre-installed app installed from a non-Google Play source.

a SSNIP.”⁷⁶² The distinction the Bernheim Report draws between smartphones and tablets is overstated. For example, the Bernheim Report claims that “[t]he size difference makes tablets difficult to use with one hand and fit in a pocket.”⁷⁶³ However, the Bernheim Report includes phablets in its definition of smartphones. Phablets, defined as “smartphones with screen sizes from 5.5 to less than 7 inches”⁷⁶⁴ and popular since 2012,⁷⁶⁵ accounted for 87% of smartphone unit sales in the United States in 2020⁷⁶⁶ and are also difficult to use with one hand and fit in a pocket.⁷⁶⁷ Furthermore, the Bernheim Report’s distinction makes no economic sense, given that users can download the same apps for mobile devices and tablets and use digital content on a phone that they purchased on a tablet and vice versa. As explained in Section IV.A.3, a large proportion of Android users also own a tablet, particularly an iPad. And in 2021, Google earned █% of U.S. consumer spending on the Google Play store from mobile device transactions in apps on tablets.⁷⁶⁸ Importantly, tablets and other devices do not need to be perfect substitutes to smartphones in order to serve as a competitive constraint on the Google Play store. These alternative ways that users multihome to access app content competitively constrain the Google Play store. This reinforces that the Bernheim Report’s proposed app distribution market is artificial.

⁷⁶² Bernheim Report, ¶ 173. See also, Bernheim Report, ¶¶ 129-135, 205.

⁷⁶³ Bernheim Report, ¶ 130.

⁷⁶⁴ IDC Quarterly Mobile Phone Tracker, GOOG-PLAY-005027814; IDC, “IDC’s Worldwide Mobile Phone Tracker Taxonomy, 2020,” April 2020, GOOG-PLAY-010801633-669, at 636; See also, Parcell, Jacob, “Trends on Tuesday: Phablets to Top Tablets in 2015?,” *Digital.gov*, November 4, 2014, available at: <https://digital.gov/2014/11/04/trends-on-tuesday-phablets-to-top-tablets-in-2015/> (“The International Data Corporation (IDC) predicts that ‘phablets,’ the popular term for smartphones with screen sizes from 5.5 to less than 7 inches, will outship portable PCs this year and tablets in 2015.”).

⁷⁶⁵ Hill, Simon, “History of Phablet,” *Android Authority*, October 11, 2013, available at: <https://www.androidauthority.com/phablet-history-279494/> (“[T]he search term ‘phablet’ began to gain real interest in January 2012.”).

⁷⁶⁶ IDC Quarterly Mobile Phone Tracker, GOOG-PLAY-005027814. Unit sales are defined as the number of new smartphones sold to users or distributors. Phablets are identified as smartphones in IDC data where “Product” variable is equal to “Phablet.”

⁷⁶⁷ See, e.g., “Best Phablet 2022,” *Venture Beat*, October 19, 2022, available at: <https://venturebeat.com/product-comparisons/best-phablet-reviews/> (“Some models are hard to use one-handed, and most won’t fit comfortably into pants’ pockets, at least when the user is sitting down.”).

⁷⁶⁸ Transactions Data, GOOG-PLAY-007203251 and GOOG-PLAY3-000018260. Spending is calculated as the sum of post-tax sales revenue. Spending on mobile devices is identified by transactions for which the device class was “PHONE,” “TABLET,” or “TABLET_LARGE.” Spending on tablets is identified by transactions for which the device class was “TABLET” or “TABLET_LARGE.” Transactions data used in this analysis are limited to orders where the delivery state was “DELIVERED,” the payment state was “CHARGED,” the payment instrument was not associated with test purchases (“TEST_INSTRUMENT” or “NO_INSTRUMENT”), and the sales revenue was positive and not missing and had a currency code of “USD.”

5. *Plaintiffs Misapply SSNIP Tests to Support their Android App Distribution Market*

a. *The Bernheim Report's SSNIP Test in the Android App Distribution Market*

394. The Bernheim Report purports to use a SSNIP test to define an Android app distribution market. The Bernheim Report's SSNIP test systematically overstates the extent to which a hypothetical monopolist can profitably raise prices. These flaws are reflected in the fact that the model used by the Bernheim Report predicts that the hypothetical monopolist can profitably raise the service fee rate by more than 500%. Specifically, the model predicts that the hypothetical monopolist can profitably raise the service fee rate from 15% to 92%. A profitable price increase of this magnitude is driven by the conceptual flaws in the model used by the Bernheim Report. The Bernheim Report's analysis also implies that Google's current service fee rate, which ranges from 15% and 30%, is far below the service fee rate that could be profitably charged by a hypothetical monopolist. This undermines the claim that Google has monopoly power.
395. Further flaws regarding the Bernheim Report's SSNIP calculations are discussed in Appendices F and G, including:
- a. The Bernheim Report's SSNIP calculations rely on arbitrary assumptions, including the assumption that the competitive profit margin is half of the Google Play store's alleged actual gross profit margin. Once the competitive profit margin is set at this assumed level, the results of the Bernheim Report's SSNIP test in the alleged Android app distribution market follow mechanically;
 - b. While the Bernheim Report acknowledges that "app distribution is a two-sided market serving both users and developers," the Bernheim Report's SSNIP calculations inappropriately assume that the alleged Android app distribution market is one-sided, based on the claim that "the facts of this case are such that a SSNIP in the market for app distribution on Android smartphones is more straightforward than in other two-sided markets" because of "limited developer substitution between app distribution on Android smartphones and app distribution on other devices and web apps."⁷⁶⁹; and

⁷⁶⁹ Bernheim Report, ¶¶ 219-220.

- c. The Bernheim Report relies on instrumental variable regressions to estimate the price elasticity of app demand. The instrument it relies on is not valid, as recognized by economic literature, including literature cited by the Rysman Report. Furthermore, the Bernheim Report aggregates Google’s transaction data to estimate the price elasticity of app demand, which causes the Bernheim Report’s estimation to mistakenly attribute unrelated changes in demand to price changes.

b. The Rysman Report’s HMT in the Android App Distribution and In-App Payments Processing Market

396. The Rysman Report also purports to use a SSNIP test to define an Android app distribution market.⁷⁷⁰ The Rysman Report applies its SSNIP calculations to a hypothetical monopolist of both Android app distribution and in-app payments processing, even though it claims that these are two separate markets.⁷⁷¹ It justifies this approach by citing the horizontal merger guidelines, which say that “[t]he hypothetical monopolist test ensures that markets are not defined too narrowly, but it does not lead to a single relevant market.”⁷⁷²
397. The Rysman Report’s decision to perform a joint SSNIP across both these markets is further support for the claim that Plaintiffs’ expert reports have improperly carved up the Android ecosystem into three narrow artificial markets.
398. The flaws in the Rysman Report’s SSNIP calculations are discussed in Appendices F and H, including:

⁷⁷⁰ Rysman Report, ¶ 220 (“[T]he hypothetical monopolist test for Android App Distribution would need to be modified to analyze whether a hypothetical monopolist of Android App Distribution could profitably impose a SSNIP on both consumers and developers together.”); ¶ 231 (“Therefore, in my view, the 10% combined SSNIP on the Android App Distribution and Android In-App Billing Services Market is profitable and thus the combined market does not include any constraints from outside the Android App Distribution or In-App Billing Services markets (such as the Apple App Store and associated billing services.”).

⁷⁷¹ Rysman Report, ¶ 223 (“In conducting my SSNIP analysis, I start by asking whether the market is broader than App Distribution and In-App Billing Services on Android ... I ask whether a hypothetical monopolist of both markets would find it profitable to impose a 10% SSNIP on both Android App Distribution and Android In-App Billing Services combined. To be clear, this does not mean that Android App Distribution and Android In-App Billing Services on Android are in one broad market.”); Rysman Report, ¶ 277 (“I find the Android In-App Billing Services Market ... is a relevant antitrust market. The market for Android in-app transactions is separable from the market for Android App Distribution.”).

⁷⁷² Rysman Report, ¶ 223; *Horizontal Merger Guidelines*, U.S. Department of Justice and the Federal Trade Commission, August 19, 2010, available at: <https://www.justice.gov/atr/horizontal-merger-guidelines-08192010>, p. 9.

- a. The Rysman Report does not correctly account for the competitive constraints faced by Google from competing platforms, ignoring the fact that alternative platforms benefit from network effects.
- b. The Rysman Report does not include free digital content transactions in the SSNIP calculations. Absent a full modeling of paid and unpaid transactions, costs incurred by the platform will be underestimated, and one cannot reliably determine if a SSNIP would or would not be profitable for Google. By ignoring the impact of the SSNIP on the costs incurred by Google to process unpaid transactions, the Rysman Report overstates the hypothetical monopolist's profits after a SSNIP.⁷⁷³

c. The Singer Report's HMT in the Android App Distribution Market

- 399. The Singer Report also purports to use three SSNIP tests to define an Android app distribution market.⁷⁷⁴ The Singer Report's SSNIP tests, too, are flawed for several reasons.
- 400. The Singer Report models Google's pricing decisions using a highly stylized Lerner Index framework that depends on Google's price-cost margin.⁷⁷⁵ A price-cost margin is a normalized measure of a firm's profitability, defined as the difference between the price and the marginal costs of a good, divided by the price.⁷⁷⁶ The primary assumptions with this framework are that Google's pricing should be close to the marginal cost that it incurs for facilitating the distribution of an app, and that Google's pricing decisions in the alleged Android app distribution market are independent and distinct from its operations outside of this alleged market. Neither of these assumptions are based on fact.
- 401. Regarding pricing near to marginal cost, the Lerner Index framework ignores that Google incurs fixed costs and investment costs in developing and operating an operating system and the Google Play store. These costs are relevant for Google's pricing decisions, especially in a

⁷⁷³ Rysman Report, ¶ 577, ("I use the monthly app revenue data produced by Google ... I understand these data include paid-for purchases only; transactions relating to free purchases/downloads are not included in the data.").

⁷⁷⁴ Singer Report, ¶¶ 93, 96, 98.

⁷⁷⁵ See, Singer Report, ¶¶ 295, 301, for a description of the theoretical framework; ¶¶ 297, 303, for a description of the model applied to the Google Play store.

⁷⁷⁶ The Lerner Index is another term for the price-cost margin. Carlton, Dennis and Jeffrey Perloff, *Modern Industrial Organization* Fourth Ed., Pearson, 2015, p. 117.

platform setting where fixed and investment costs can be substantial. As economists have explained, the Lerner Index is not an appropriate tool for these circumstances.⁷⁷⁷

The most important limitation of the Lerner Index ... is that the Index ‘does not recognize that some of the deviation of P from MC comes from either efficient use of scale or the need to cover fixed costs’. ... The cost structure of firms in many technology-driven industries (e.g., software, pharmaceuticals) is markedly front-loaded. Marginal cost pricing in these industries is neither feasible nor desirable.

402. In fact, the Singer Report’s modeling framework is designed to result in a finding that Google’s pricing is above what it allegedly would charge in a competitive setting. This is because, in a platform context, the marginal cost of a transaction to Google may be close to zero, and the Singer Report’s modeling framework estimates that Google’s prices should be close to this marginal cost. But the Singer Report compares these estimated prices in a hypothetical competitive setting to Google’s actual prices that are not actually based on the marginal cost of a transaction, but rather are also based on costs associated with the development and operation of the Android ecosystem and the Google Play store.⁷⁷⁸ These actual prices will therefore be higher than what the Singer Report estimates for a competitive setting, not because of Google’s alleged monopoly power, but because the Singer Report ignores the actual way in which Google determines its prices.
403. The Singer Report also ignores the fact that the Google Play store does not simply provide a platform to download apps and separately a platform to make in-app payments. Instead, the Google Play store provides continuous support and feedback that enhances the relationship between the user and the developer within a digital ecosystem and on the transaction platform. The Singer Report also systematically ignores the millions of free apps and billions of free digital content transactions that the Google Play store has facilitated as part of the freemium business model, along with the costs associated to support those transactions. This means that, contrary to the Singer Report’s modeling assumptions, Google does not determine its service

⁷⁷⁷ Elzinga, Kenneth G. and David E. Mills, “The Lerner Index of Monopoly Power: Origins and Uses,” *American Economic Review*, Vol. 101, No. 3, May 2011, (pp. 558-564), pp. 559-660.

⁷⁷⁸ Samat Deposition, Day 1, pp. 77:14 - 78:2 (“Q. ... do you have a sense for what the costs are to Google of having to process that transaction, that marginal incremental transaction? A. I mean, there is a lot of factors it depends on. I think the question is really how that all got to be generated in the first place, right. There’s a lot more that goes into providing an ecosystem where developers and users can be successful and connect with each other in that way than just the transaction, right.”); Samat Deposition, Day 2, p. 592:14-19 (“A. What is the purpose of pricing? The pricing is we want to set a point where we have participation from developers but yet we can still invest in our overall ecosystem.”).

fee for the alleged App distribution market in isolation of its other revenue streams. Any analysis of Google's profit maximizing decisions would need to take into account the entirety of its transaction platform, which would include paid and unpaid transactions, downloads and in-app transactions, and the dynamics of indirect network effects where both developers and users benefit from a larger developer and user base.

404. Further flaws regarding the Singer Report's SSNIP calculations are discussed in Appendix I, including:
- a. Relying on a flawed calculation of the Google Play store's marginal cost for the distribution of apps that is based on the Google Play store's aggregate profit and loss (P&L) data and not indicative of Google's actual costs to sell an app;⁷⁷⁹ and
 - b. Making an unfounded and baseless assumption that Google's market share would be 60% in the App Distribution market if it were to allegedly be competitive because that was what AT&T market share was in 1993 "after losing its monopoly" in the interstate long-distance telephone market.⁷⁸⁰ The Singer Report makes this assumption even though the long-distance telephone market was heavily regulated at this time by state regulated duties to deal, which involved a system of cross subsidies, price caps, and obligations for firms "to provide service to all customers, including at a loss[.]"⁷⁸¹ This regulated marketplace is not representative of the competitive landscape in which the Google Play store operates or would likely operate were it to allegedly face additional competition. Consumers' preferences for the services provided by long distance telephone companies and digital content providers are different, as is the substitutability of products provided by firms in each of the two industries, such that it makes no sense to claim that market shares would be similar across these settings.

⁷⁷⁹ Singer Report, ¶ 304, footnote 683; ¶ 324, footnote 741; ¶ 386, footnote 918.

⁷⁸⁰ Singer Report, ¶ 304, footnote 686; ¶ 386, footnote 920; Kahai, Simran K., David L. Kaserman, and John W. Mayo, "In the "Dominant Firm" Dominant? An Empirical Analysis of AT&T's Market Power," *The Journal of Law & Economics*, Vol. 39, No. 2, 1996, (pp. 499-517), p. 510.

⁷⁸¹ Hurwitz, Gus, "Digital Duty to Deal, Data Portability, and Interoperability," *The Global Antitrust Institute Report on the Digital Economy*, Vol. 28, 2020, (pp. 1024-1058), p. 1038.

E. Plaintiffs' In-App Payments Processing Market is Flawed

405. This subsection describes the flaws in the Tadelis, Rysman, Singer and Schwartz Reports' approach to defining a separate market for in-app payment fees. This ignores that the service fee for select digital content transactions on the Google Play store is a monetization strategy that helps fund the entire ecosystem and all the value unlocked within it and cannot be separated from the alleged Android App distribution market. It also ignores that as a monetization strategy it unlocks value for users and developers, and that the Google Play store is only paid if it creates sufficient value. Conflating this monetization strategy with an in-app payment processing market is not economically coherent. The Schwartz and Tadelis Reports' attempt at a SSNIP test reflects these flaws.

1. Plaintiffs Mistakenly Define a Distinct Market for In-App Payment Processing

406. The Rysman and Tadelis Reports assert that payments for digital content outside of an app are not a reasonable substitute for payment for the same content inside the app. The Rysman and Tadelis Reports claim that there are high frictions to transacting through substitutes such as web browsers and non-smartphones.⁷⁸² The Rysman Report claims that “frictions that discount the user experience likely lead to consumers abandoning in-app purchases that cannot be completed within the app.”⁷⁸³ The Tadelis Report claims that “browser-based payment solution services are associated with markedly higher frictions in the payment process than exist for in-app payment solution services,” and that “Google’s anti-steering provisions...prohibit developers from linking or directing users to websites selling in-app digital goods, or even telling users that such websites exist.”⁷⁸⁴
407. The Rysman and Tadelis Reports misrepresent the ease with which users can purchase digital content outside of the Google Play store that can be used in apps downloaded via the Google Play store. As I show in Section V, users can and do make substantial payments outside of the Google Play store, for example, on Fortnite. Many users may still prefer to pay via the Google Play store but that may simply reflect consumer preference for the security and controls it offers rather than any evidence of friction associated with payments on other platforms.

⁷⁸² Rysman Report, ¶¶ 273-274; Tadelis Report, ¶¶ 101-115.

⁷⁸³ Rysman Report, ¶ 273.

⁷⁸⁴ Tadelis Report, ¶ 102.

408. As explained in Section VI.D.2, the Bernheim Report’s analysis of the Fortnite natural experiment shows that Google Play users do in fact use other platforms to access and spend on and play Fortnite. In addition, I show in Appendix E.A that when I use the Bernheim Report’s model to examine revenues instead of time played, I find evidence that suggests that Google Play users substituted to making more monetized transactions on PCs and consoles after Fortnite was removed from the Google Play store.
409. Plaintiffs’ experts also do not explain why Google would have reduced service fees for developers that can offer subscriptions outside of the Google Play store if making payments for digital content outside of the Google Play store was not a substitute for purchasing the content in an app downloaded from the Google Play store.

2. Plaintiffs Misunderstand the Digital Competitive Landscape When They Claim Users are “Locked in”

410. The Singer Report’s misunderstanding of the economics of the current digital landscape is reflected in the way that it compares the alleged “lock in” of users into the Android operating system to “hotel guests who pay supra-competitive prices for movie rentals,” as they “simply do not wish to incur the costs of leaving the movie theater (or hotel) to find a cheaper substitute for the ancillary product.”⁷⁸⁵ This example illustrates exactly the opposite of what the Singer Report asserts. Due to the digital age and the evolution of competition across platforms, hotels have lost the market power they once had over the price of movie rentals. In 2022, rather than being locked into watching movies on a hotel TV, hotel guests can choose to watch movies on their phone, tablet or PC. Consumers’ ability to switch to these other platforms has created competitive pressure on hotel and movie theaters: many hotels now offer access to streaming services built into the TVs in their rooms.⁷⁸⁶ Other platforms available on multiple devices exert a similar competitive constraint on the Google Play store by enabling users to leave the Google Play store to purchase digital content—including access to the same cross-platform streaming services that have put pressure on hotels and movie theaters.

⁷⁸⁵ Singer Report, footnote 86.

⁷⁸⁶ “Why you should offer a streaming device to your hotel guests?,” *InnSpire*, September 7, 2022, available at: <https://www.innspire.com/why-you-should-offer-a-streaming-device-to-your-hotel-guests/> (“Today, streaming devices in hotel rooms are more of a guest requirement than an unheard-of service.”).

3. Plaintiffs' SSNIP Tests for the Hypothetical Payments Processing Market are Flawed

411. A subset of Plaintiffs' expert reports use a SSNIP test to define an in-app payment processing market. These SSNIP tests are flawed and uninformative.
412. The Tadelis Report argues that Google "is able to charge significantly more than a SSNIP above the price that would likely prevail but for the alleged misconduct[.]"⁷⁸⁷ In conducting its SSNIP test, the Tadelis Report conflates the Google Play store's service fee with a payment processing fee. The Tadelis Report states, "the maximum effective percentage commission of any alternative provider is 8.8 percent (PayPal), as compared to Google's typical 30 percent commission rate charged on such transactions."⁷⁸⁸ However, it does not make sense to compare Google's fee to payment processing fees, because as I discuss in Section VI.C.2, Google's fee is not simply a payment processing fee but rather a means of supporting the services that Google provides for its ecosystem.
413. The Singer Report conducts a SSNIP test on the alleged in-app payments market that has several conceptual and empirical flaws. Many of these flaws are the same as those discussed in Section VI.D.5.c regarding its tests on the app distribution market, including:
- a. Using a highly stylized Lerner Index framework that ignores fixed and investment costs in developing and operating an operating system and the Google Play store which are relevant to Google's profit maximizing decisions;
 - b. Relying on a model of the alleged in-app payments market that ignores the facts regarding Google's freemium business model and the related aspects of the Android ecosystem. That is, contrary to the Singer Report's overly simplified model of Google's pricing decisions, Google does not determine its pricing in an alleged App Distribution market in isolation of the rest of the Google Play store's business and revenue streams;
 - c. Relying on a flawed calculation of the Google Play store's marginal cost for in-app payment transactions that is based on the Google Play store's aggregate P&L data and not indicative of Google's actual costs to service an in-app payment;⁷⁸⁹ and

⁷⁸⁷ Tadelis Report, V.C.2.

⁷⁸⁸ Tadelis Report, ¶ 96.

⁷⁸⁹ Singer Report, ¶ 324, footnote 741; ¶ 386, footnote 918.

d. Making the baseless assumption that Google's market share would be 60% in the alleged in-app payments market if it were to allegedly be competitive because that was what AT&T market share was in 1993 "after losing its monopoly" in the interstate long-distance telephone market.⁷⁹⁰

414. In addition, the Singer Report's SSNIP test for the alleged in-app payment processing market makes an unsupported assumption regarding the supply elasticity of competing firms in an allegedly competitive setting. The test assumes a response equal to that of a "fringe firm" in the interstate long-distance telephone market from the 1980s and early 1990s.⁷⁹¹ Again, the long-distance telephone market was heavily regulated at this time by state regulated duties to deal, which involved a system of cross subsidies, price caps, and obligations for firms "to provide service to all customers, including at a loss."⁷⁹² Consumers' preferences for the services provided by long distance telephone companies and digital content providers is different, as is the substitutability of products provided by firms in each of the two industries. The long-distance telephone market from 30-40 years ago is unrepresentative of the competitive landscape in which the Google Play store operates and it makes no sense to claim that the Google Play store's competitors would adjust their output in response to a price change from Google at a rate similar to that of land-line telephone companies from changes to other telephone companies' prices. These flaws are discussed further in Appendix I.
415. The Bernheim, Rysman, Singer and Tadelis Reports' SSNIP tests on both the Android app distribution and in-app payments markets also suffer from relying on estimates of average spending among consumers and making claims about Google's ability to sustain supracompetitive prices. But given the concentration of spending among certain high-value users, as I discuss in Section VI.B.5, for whom an increase in price or decline in quality in the Google Play store would be of a much higher magnitude than average app spend would suggest, an analysis of the potential impacts of an increase in price or a decline in quality of the Google Play store would need to take into account the heterogeneous effects of those

⁷⁹⁰ Singer Report, ¶¶ 328, 331, 386, footnote 920; Kahai, Simran K., David L. Kaserman, and John W. Mayo, "In the 'Dominant Firm' Dominant? An Empirical Analysis of AT&T's Market Power," *The Journal of Law & Economics*, Vol. 39, No. 2, 1996, (pp. 499-517), p. 510.

⁷⁹¹ Singer Report, ¶ 328; Kahai, Simran K., David L. Kaserman, and John W. Mayo, "In the 'Dominant Firm' Dominant? An Empirical Analysis of AT&T's Market Power," *The Journal of Law & Economics*, Vol. 39, No. 2, 1996, (pp. 499-517), pp. 507-508.

⁷⁹² Hurwitz, Gus, "Digital Duty to Deal, Data Portability, and Interoperability," *The Global Antitrust Institute Report on the Digital Economy*, Vol. 28, 2020, (pp. 1024-1058), p. 1038.

changes. Plaintiffs' expert reports' analyses ignore the differential impact that such changes may have on users or developers, and therefore fail to properly demonstrate that Google's current service fee for in-app payments is supracompetitive.

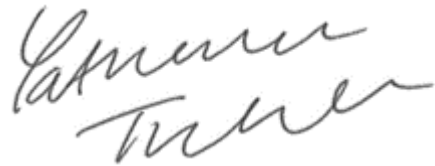
VII. THE RELEVANT GEOGRAPHIC MARKET IS THE UNITED STATES

416. This section explains that in defining a geographic market, an economist must consider the same questions of substitutability as in a product market. It then explains why differences in laws, compliance, and consumer needs mean that for users, different alternatives to using Android and the Google Play store outside of the US are not a reasonable substitute. It also explains that the Plaintiffs' expert reports' arguments to exclude China are inconsistent.

A. Defining Geographic Markets

417. As I explain in Section III, the product in this case is the facilitation of digital content transactions between users and developers. The economic evaluation of the geographic dimensions of the relevant market involves principles similar to those used when evaluating the relevant product market. Economists identify a geographic dimension of the relevant market because there may be geographic limits on the products to which consumers would switch in the event of a price increase or decline in quality even if two products available in different places are essentially the same. For example, consider someone who needs urgent medical care in Maine. A provider in Portland, Oregon is not a substitute for a provider offering the same quality of care in Portland, Maine. If the Maine provider reduces the quality or raises the price of care, people in Maine who need urgent medical care likely will not go to the provider in Oregon instead. Accordingly, the provider in Portland, Oregon should not be in the relevant geographic market for urgent medical care for people who live in Maine. More generally, if there are factors that affect the availability of products or services in one geography and limit consumers' access to those products and services in another geography, one must consider the effect of those factors on a potential substitution. In the urgent medical care example, the limiting factor is patients' willingness and ability to travel to obtain the services.
418. Geographic limits on the set of products to which consumers would switch do not have to be physical. Pharmaceuticals are an example. Pharmaceutical products sold in different countries

only analyzes the Google Play store's margins from 2011 onwards.¹⁰⁴² The Google Play store operated at a loss in each year from 2009 through 2012. In 2009 and 2010, internal presentations suggest that the operating loss was \$51.7 million and \$102.4 million.¹⁰⁴³ In 2011 and 2012, the Google Play store operated at a loss of \$126 million and \$72 million, and its operating profit margins were negative prior to 2013.¹⁰⁴⁴ Plaintiffs' Expert Reports' failure to take into account these losses reflects again the inadequacy of their margin's analysis to support their allegations of monopoly power.



Catherine E. Tucker
November 18, 2022

¹⁰⁴² Bernheim Report, Figure 68.

¹⁰⁴³ Google Presentation, "Android OC Quarterly Review - Q2 2010," July 12, 2010, GOOG-PLAY-001490474-493, at 478; Google Presentation, "Android OC Quarterly Review – Q2 2011," July 26, 2011, GOOG-PLAY-005570952-972, at 958. Estimates reflect actual Android P&L for 2009 and 2010, which includes revenue from Ads. Christian Cramer, the Director of Play Finance, testified that he believes that Android Market P&Ls for 2009 and 2010 were not created. Deposition of Christian Cramer, *In Re Google Play Store Antitrust Litigation*, 3:21-md-02981-JD, January 13-14, 2022 ("Cramer Deposition"), Day 1, p. 124: 6-14. ("Q. Did Google track the Android market P&L's separately in 2008, 2009 and 2010? A. I don't think so. Q. So where was the Android market P&L tracked? A. I suspect there was no such thing as an Android market P&L. Q. For those years? A. Yes.").

¹⁰⁴⁴ Bernheim Report, ¶ 476, Figure 68.

Exhibit D10

Public Redacted Version

EXHIBIT 27

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Page 1

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

-----x
IN RE GOOGLE PLAY STORE Case No.
ANTITRUST LITIGATION 3:21-md-02981-JD

THIS DOCUMENT RELATES TO:
Epic Games Inc. v. Google LLC et al.,
Case No. 3:20-cv-05671-JD

In re Google Play Consumer Antitrust
Litigation, Case No. 3:20-cv-05761-JD

In re Google Play Developer Antitrust
Litigation, Case No. 3:20-cv-05792-JD

State of Utah et al. v. Google LLC et al.,
Case No. 3:21-cv-05227-JD

Match Group, LLC et al. v. Google LLC et al.,
Case No. 3:22-cv-02746-JD

-----x
** HIGHLY CONFIDENTIAL - UNDER PROTECTIVE ORDER **

REMOTE VIDEOTAPED DEPOSITION OF
KIRSTEN RASANEN
Wednesday, August 17, 2022

REPORTED BY:
RENEE HARRIS, CA CSR 14168, NJ CCR, RPR

HIGHLY CONFIDENTIAL

Page 13

1 counsel for the State of Utah here today on
2 behalf of 39 Attorney Generals.

3 THE VIDEOGRAPHER: Mr. Kravis?

4 MR. KRAVIS: Good morning, Jonathan
5 Kravis from Munger Tolles & Olson for Google
6 and the witness, and with me is Jamie Luguri,
7 also from MTO, and Brian Smith from Google.

8 THE VIDEOGRAPHER: Thank you. Will the
9 Certified Court Reporter please swear in the
10 witness.

11
12 KIRSTEN RASANEN,
13 called as a witness and having been first duly
14 sworn by the Certified Shorthand Reporter, was
15 examined and testified as follows:

16
17 EXAMINATION

18
19 BY MR. WALCHAK:

20 Q. Ms. Rasanen, you just heard just a moment
21 ago but my name is David Walchak. I'm with the
22 Consumer Plaintiffs. I am representing Consumer
23 Plaintiffs today with the law firm Korein Tillery,
24 and I'm going to begin asking you questions before
25 the other Plaintiffs' group take turns after me.

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Page 253

1 A. That's right.

2 Q. All right. So I want to start with the
3 bottom e-mail on the chain, first in time, it's
4 dated April 17, 2017 at 4:49 p.m. from Samer
5 Sayigh, I apologize if I butchered the name.

6 Do you see that e-mail?

7 A. Yes, I do.

8 Q. And I think you mentioned him earlier.
9 What was his role at Google at this time?

10 A. Samer Sayigh was on the Play strategy
11 team.

12 Q. Was it the same team you were working on?

13 A. I was on the Play business development
14 team.

15 Q. So he writes, "Hi, Team, I sent a
16 previous e-mail on this topic but want to start
17 separate thread. Kindle and Audible, both Amazon,
18 are two major non-subscription apps that would be
19 impacted by proposed apps policy change."

20 What was the proposed apps policy change
21 that Google was considering at this time?

22 A. If you'll give me a moment to just orient
23 myself to where we are in time with this thread.

24 Okay. Could you repeat your question?

25 Q. Sure.

HIGHLY CONFIDENTIAL

Page 254

1 What was the proposed policy apps -- I'm
2 sorry. Strike that.

3 What was the proposed apps policy change
4 that Google was considering at this time?

5 A. I think this was a change where we were
6 considering removing the downloadable content
7 exception from -- from the policy, the
8 downloadable content exception I mentioned
9 earlier.

10 Q. And do you recall that exception said
11 that app developers are not required to use Google
12 Play Billing when a customer purchases digital
13 content that could be consumed outside the app
14 itself?

15 A. That sounds familiar, yes. I don't know
16 if those are the exact words; if you tell me they
17 are.

18 MR. REITER: Why don't we -- just to be
19 clear, I'm going to introduce another
20 exhibit. This will be marked PX 1435 -- 36.

21 (Exhibit 1436 was received and marked
22 for identification on this date and is
23 attached hereto.)

24 BY MR. REITER:

25 Q. Let me know when you're able to see this

HIGHLY CONFIDENTIAL

Page 255

1 exhibit.

2 A. Okay.

3 Q. Okay. Do you recognize this as a version
4 of Google's payments policy?

5 A. I recognize -- yes, I recognize this as a
6 policy article in Google's Help Center.

7 Q. And so is this a version of Google's
8 payments policy?

9 A. It appears so, yes.

10 Q. And do you see the sub-heading, "In-app
11 purchases"?

12 A. Yes.

13 Q. And the second bullet point says,
14 "Developers offering products within another
15 category of app downloaded on Google Play must use
16 Google Play In-App Billing as the method of
17 payment except for the following cases:"

18 And there's two exceptions listed there;
19 correct?

20 A. Yes.

21 Q. And the second exception says, "Payment
22 is for digital content that may be consumed
23 outside of the app itself."

24 Do you see that?

25 A. I see that.

HIGHLY CONFIDENTIAL

Page 256

1 Q. And is that the -- so going back to
2 Exhibit PX 1435, at this point in time, April
3 2017, was Google considering removing that
4 exception from the payments policy?

5 MR. KRAVIS: Object to form.

6 THE WITNESS: I don't know if -- I'm
7 sorry, I don't recall if the -- if this was
8 removing it altogether or clarifying it and
9 changing it.

10 BY MR. REITER:

11 Q. Okay. But the policy change would have
12 had to do with that exception to the Google
13 payments policy; right?

14 A. That's right.

15 Q. Okay. And for how long to your knowledge
16 did Google have that exception in its payments
17 policy?

18 A. I don't -- as long as I worked there. I
19 don't know when it was implemented. So I can't
20 give you a total time.

21 Q. Do you know when it was removed?

22 A. I don't know if it ever actually was
23 removed. I don't remember that we got there or
24 not. So I'm sorry, I don't know.

25 Q. That's okay.

HIGHLY CONFIDENTIAL

Page 272

1 And so my proposition here is that the
2 consumables that these other apps were selling,
3 were the same sort of item as was sold in a game.
4 But because they weren't specifically games, our
5 policy ambiguity allowed for this -- for them to
6 take advantage of the exception if they -- if they
7 had the website and the app.

8 Does that make sense? Sorry.

9 Q. Let me see if I can clarify.

10 So for dating apps that had a website,
11 Google treated those differently from games by not
12 requiring exclusive use of Google Play Billing; is
13 that right?

14 A. No. What I'm saying is because dating
15 apps are not games, it was not clear in the policy
16 as it was for games that consumables like boosts
17 and superlikes required in-app billing if the apps
18 were interpreting the policy based on the
19 ambiguity that we previously discussed.

20 Q. I see.

21 But Google treated those apps differently
22 because unlike games, it didn't -- it did not
23 enforce the policy and require exclusive use of
24 Google Play Billing?

25 MR. KRAVIS: Object to form.

HIGHLY CONFIDENTIAL

Page 273

1 THE WITNESS: Yes, in practice, that's
2 what happened.

3 MR. REITER: Okay. I'm introducing
4 another exhibit. This will be Plaintiff's
5 1437.

6 (Exhibit 1437 was received and marked
7 for identification on this date and is
8 attached hereto.)

9 BY MR. REITER:

10 Q. Please let me know when you're able to
11 see it.

12 A. Okay.

13 Q. Actually before I ask about this e-mail,
14 you testified that you had been told the intent
15 behind the exception in the payments policy that
16 we were just looking at, was that it would apply
17 to downloads that you could use on a different
18 application, I believe, were your words.

19 Who told you that?

20 A. I don't -- I don't remember who told me
21 specifically. My recollection is that it was
22 commonly understood across the team that that was
23 the intent. That's my recollection. I don't -- I
24 don't recall conversation.

25 Q. You never recall discussing this topic

HIGHLY CONFIDENTIAL

Page 274

1 with your colleagues?

2 A. I mean, yes, of course. And clearly, we
3 had lots of discussions about it and about the
4 policy. But again, like, who specifically said to
5 me the words, "this is what the intent was," I
6 don't remember.

7 Q. And you've never spoken to anybody who
8 actually drafted that policy exception about what
9 they intended it to mean; is that right?

10 A. Yeah, I don't know. I mean, I may have.
11 I don't know who -- who wrote the policy. So I
12 don't know if I talked to them or not.

13 Q. Okay. Exhibit 1437 is a multi-page
14 e-mail chain dated between December 16, 2016 and
15 January 17, 2017. The first page is Bates stamped
16 GOOG-PLAY-838161.

17 Do you recognize this e-mail chain?

18 A. I recognize this as an e-mail chain that
19 I was included on and maybe responded to, I'm not
20 sure.

21 Q. Actually, if you look at the -- on the
22 first page, the second e-mail, do you see that
23 that's a response from you?

24 A. Yes, I do.

25 Q. So is this -- are these e-mails that you

HIGHLY CONFIDENTIAL

Page 275

1 would have sent and received in the ordinary
2 course of your business at Google?

3 A. Yes.

4 Q. Okay. I'd like to start with the first
5 e-mail in time which is on page 838166 --

6 A. May I have a moment to orient myself on
7 the content of this e-mail?

8 Q. Sure.

9 A. Okay. I think I'm -- I think I know
10 where I am in time.

11 Q. Okay. So are you looking at the e-mail
12 that Brandon Barras sends on December 16, 2016 at
13 4:55 p.m.?

14 A. Yes.

15 Q. And who was Mr. -- who is Mr. Barras?

16 A. Mr. Barras is the -- or was at the time,
17 I don't know if he still is, the partner manager,
18 the Play partner manager for the Match Group.

19 Q. What were his responsibilities, if you
20 know, as the Play partner manager for the Match
21 Group?

22 A. As described just like general
23 responsibilities of a Play BD manager, to work
24 with our partners to ensure that they were aware
25 of the latest Android developments, that they were

HIGHLY CONFIDENTIAL

Page 276

1 using all best practices in their apps for users,
2 and to help them grow their businesses on Play,
3 and clearly here, to talk also about -- to think
4 about implications of changes that those apps may
5 make.

6 Q. Did Mr. Barras report to you at this
7 time?

8 A. Yes, at this time. Yes.

9 Q. So in the first sentence of his e-mail he
10 writes, "There is growing concern that Tinder may
11 add additional billing options or move away from
12 Play Billing altogether in early 2017. We would
13 like to discuss mitigating that risk by offering
14 [REDACTED] to Match Group."

15 Do you recall that in December 2016,
16 Google had concerns that Tinder would add
17 additional billing options besides Google Play
18 Billing?

19 A. I remember the concerns. I didn't recall
20 the timing until looking at this e-mail, and I
21 recall it from the last thread you showed me where
22 we talked about Tinder expanding to a -- and
23 availing themselves of the ambiguous exception.

24 Q. And why was -- why did Google have
25 concerns about Tinder offering additional billing

HIGHLY CONFIDENTIAL

Page 364

1 STATE OF CALIFORNIA)
2) ss.
3 COUNTY OF LOS ANGELES)

4 I, RENEE HARRIS, do hereby certify that I
5 am a licensed Certified Shorthand Reporter, duly
6 qualified and certified as such by the State of
7 California;

8 That prior to being examined, the witness named
9 in the foregoing deposition was by me duly sworn
10 to testify to tell the truth, the whole truth, and
11 nothing but the truth;

12 That the said deposition was by me recorded
13 stenographically;

14 And the foregoing pages constitute a full,
15 true, complete and correct record of the testimony
16 given by the said witness;

17 That I am a disinterested person, not
18 being in any way interested in the outcome of said
19 action, or connected with, nor related to any of
20 the parties in said action, or to their respective
21 counsel, in any manner whatsoever.

22 DATED: August 18, 2022

23



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Renee Harris, CSR, CCR, RPR

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